

National Projects



**Deutz
Stalwart
A6L514**

In the year 1942 Deutz started production of their first air cooled engine the origin came about due to the German military needing an all season power source for back up operations, the engine we are talking about today is the A6L514 air cooled 6 cylinder engine producing 52 KW @ 1800 RPM. This may seem low , but please bear in mind at the time there were many horse drawn carts and wagons and motorized vehicles were limited and registered to a very low carrying capacity .The very same engine propelled the very early Magirus trucks 3-5 tons in capacity.

The A6L514 engine was purchased and installed in 1952 into the Table Mountain Cape Town Cable car station as a standby emergency generating set, in case of power failure, thus securing critical power to the station, related equipment and specifically the emergency braking system. The engine proved to be reliable , efficient and cemented the statement of the "only engine of choice". The engine was official decommissioned and a new technology Deutz water- cooled engine took up its position to carry on superior Deutz service.

The decommissioned unit was thought to have reached its service life limit but it was not to be. In January 2008 the engine was given a new lease of life going back into active service powering a large game farm in Thabazimbi , ensuring the breeding farm was never without life saving power generation.

Go Deutz air- cooled technology !!!

Jannie Bekker



The Deutz Stalwart A6L514



SHEQ NEWS

Introducing Raymond Dlamini

The appointment of Mr Raymond Dlamini as our full time SHEQ Coordinator on 19 October 2007 is intended to intensify our efforts to management and improve our management system.

Raymond will be reporting directly to Mr Rowan Michelson, who has taken over the overall responsibility of our SHEQ System.

One of Raymond's many tasks will be the maintenance and control of our SHEQ Management System.

We would like to take this opportunity to welcome Raymond to the Company and wish him well with his appointment.

We are confident that with Raymond's health and safety labour department background he will become a valuable asset to our SHEQ team.

Surveillance Audit

DEKRA certification will be conducting its first surveillance audit (during the validity of our certification), between the 07 and 11 of April 2008.

It is planned to audit the Johannesburg Branch (HO) together with the Welkom and Johannesburg Repair Centre Branches.

Mike Tilston

Johannesburg Repair Centre (JRC) Set to relocate

Deutz Dieselpower plans to consolidate all of its Johannesburg operations into its premises at 5 Tunney Road - Elandsfontein.

This process will involve moving the entire logistics/warehouse operations into the two bays currently occupied by ABES Technoseal and then to relocate the Johannesburg Repair Centre operations from the Isando premises into the space vacated by the warehouse move and at the same time, reposition the mod-shop operations in order to have improved space utilisation and process flow.

The move had originally been planned for around mid-year, however due to unforeseen delays with the departure ABES, it is now only expected to take place during the later part of the year.

The planned changes outlined above will result in better control of operations and resource management and at the same time, provide better sales and spare parts service and accessibility to customers.

Design of the Johannesburg Repair Centre "state-of-the-art" engine test facility is at an advanced stage and will result in the assurance that rebuilt engines meet the strict test parameters whilst providing employees with a safe working environment.

A further development of the relocation process will be a fully upgraded stripping and cleaning area, which will improve the containment of grease/oil and dirt and at the same time ensure that hazardous waste and effluent discharge is effectively controlled.

In-house machining of reworked engine parts will also be upgraded as part of the process of moving the JRC operations.

The finalisation of engines including paint preparation and painting facilities are also to be upgraded as part of the relocation process.

M Tilston

RedRocket News



A DIVISION OF **Hudaco** TRADING LIMITED

**The official Deutz
Dieselpower Newsletter**

September 2007 - May 2008

Outstanding Efforts Achieve Outstanding Results



Leon Coetzer
Managing
Director

The Board wishes to thank all our customers and service partners for their loyal support and also wish them all the success in their business endeavors in 2008.

Congratulations to all employees for achieving such outstanding results!

We continued to experience strong growth towards the end of 2007 resulting in another substantial improvement on our already record breaking results of 2006. Sales improved by a very pleasing 38% compared to our 2006 financial year which is an outstanding performance.

The first quarter of our 2008 financial year, continues on the same trend and we are currently trading 20% up compared to the same period in 2007.

We are concerned that the electricity supply problems in South Africa might effect our results in 2008, as the mining industry is particularly effected by this crisis.

On the positive side, we are in the process of establishing a Deutz Centre of Excellence at our Tunney Road premises. DDP will take over the entire premises during the second half of 2008 which will allow our repair centre to be moved into our Tunney Road facility.

Branch Focus DDP Steelpoort

In the heart of the Limpopo Province our young and dynamic Sales and Support branch has made massive strides bringing the branch from 1 person in September 2005 to currently 8 with the immediate aim to grow to 13.

The branch supports a large area covering a radius in excess of 200km including large rural areas, localized PGM mines with decline, shaft and surface mining operations, industrial and large construction sites , Original Equipment Manufacturing support sites (OEM) right down to the man on the street.

Due to the unprecedented growth worldwide in the demand for PGM (Platinum Group of Metals), which includes, Platinum, Palladium, Rhodium and Chrome amongst others the branch has had to "step up to the plate" and ensure

that our sales and support base matches and exceeds local demand and secures a strong base for the future. This situation has fast tracked our strategy to become a leader in Deutz support in the region.

Talk in the industry is that the Steelpoort / Burgersfort area is set to exceed the growth statistics of Rustenburg in the very near future, which was voted the fastest growing town in SA last year.

We welcome Shawn Bedser into the team as branch manager as of 1 March 08 with Koos Van Zyl heading up the dynamic field service team as Field Service Foreman. His team consisting of Fabian Naude , Leon Geldenhuys, Grawie Martiz with Jan Marx heading up the



Sales Support side , Denis Malepe as Driver / General Assistant with Chantelle Van Der Merwe supporting the branch with administration control.

As a team we look forward to securing the additional personnel, and growing the branch to exceed all local demands

Shawn Bedser



Customer Support



DEUTZ Hybrid Drive

A TRUE HEAVY-DUTY HYBRID

Innovation from DEUTZ, WEYHAUSEN and HEINZMANN

The first earthmoving machine in the world with integrated hybrid drive has been received with great interest.

Hybrid drive is a new technology full of promise and has in recent years spawned a whole range of market ready products in the private car sector, and now it is coming to earthmoving machinery. This drive concept will significantly reduce fuel consumption by 15 to 20%.

Deutz, Atlas-Weyhausen and Heinzmann have joined together to develop a prototype of a hybrid wheel loader.

The Atlas AR 65-Hybrid uses a Deutz diesel engine and electric motor-generator, and controls from Heinzmann to provide machine propulsion functions.

The drive unit is the mild hybrid type, consisting of a Deutz four-cylinder engine of the 2011 series is used with a power output of 36.9 kW at a speed of 2100 min⁻¹, conventional drive elements, such as transmission, axles and hydraulic system, at least one electric power unit (motor-generator) and a heavy-duty battery.

In view of the high power density electric unit and power electronics are oil-cooled. The electric drive serves only to assist the main diesel engine drive.

It is mounted directly on the crankshaft of the standard Deutz diesel motor. The liquid cooled electric motor makes available 10kW and up to 30kW maximum output.

In boost function the overall power can reach up to 90 per cent of the output power of the diesel engine.

The hybrid drive is easy to fit, and can be integrated with different types of engine and retrofitted to existing systems.

The electric motor is 160 millimetres long and takes the place of the diesel engine flywheel. The overall length of the transmission increases by 80 millimetres.

A Li-Ion battery, developed and manufactured by Axeon specifically for this project and based on DEUTZ and WEYHAUSEN specifications, serves as storage element.

When operated as motor, the electric unit withdraws energy from the battery and feeds it into the power train. Vice versa, when operated as generator, the electric unit withdraws power from the power train and recharges the battery. Power peak demands can thus be covered by the battery. The combustion engine can therefore be downsized and be operated at its best operating point. This results in a considerably improved efficiency of the complete equipment drive.

Initially, the mild hybrid solution will involve only the following functions:

1. Starting and stopping – the starter motor is no longer required
2. Boosting – the electric motor kicks in during performance peak
3. Battery recharging – when the diesel engine's peak performance is not required, the electric motor can act as a generator and recharge the batteries. (In the future the alternator and drive will be dispensed with completely).
4. Adoption of an electric motor significantly improves the drive system's overall efficiency. When working as a drive, the electric motor takes power from the battery and delivers it to the drive system. Functioning as a generator, it takes power from the drive system and uses it to Performance peaks can be covered by the battery.

In a next step the wheel loader shall be powered by a full hybrid drive system. It will then be possible to realize in addition to the above functions temporarily a strictly electric and thus emission-free operation.

A host of applications await hybrid drive, and it will soon be demonstrating its positive features, including for example its constant speed in the low speed range and in transient use.

Dirk Jacobs

JHB Sales



Air-cooled Deutz Gensets (ADG)

DEUTZ have recently announced the launch of a new product, the Air-cooled DEUTZ Genset (ADG). The ADG product was launched in November 2007 at the Africa Dealer Seminar held in Marrakech, Morocco. The ADG product is produced by DEUTZ Customised Solutions in the Ulm facility in Germany. The ADG product consists of a range of complete gensets from 28 – 152kVA (at cos phi 0,8) featuring the well known air-cooled range of engines. The 914 engine series is used in all models except the 28kVA unit, which uses the 912 series.

The ADG product is available in a variety of different options such as open frame set or sound-proof canopy, base load or automatic mains failure panel and 50Hz or 60Hz operation. The sound proofed option involves a specialized design to ensure optimized operation of the air-cooled engine inside a canopy. The design consists of two panels that separate the cooling air intake from the engine and a second panel that separates the engine from the alternator. This design prevents any overheating of the engine or alternator due to hot air circulation inside the canopy. The light weight doors are made of PET and can easily be removed and re-fitted.

The engine is coupled to a Marelli alternator, a well known quality product with good service support in most markets. The ADG set features a DEIF controller type GC-1F with IP 65 protection. The control panel is easily accessible and can be folded out on the lower hinges. The panel can also be easily interchanged should a different panel option be required.

The ADG gensets are designed for extreme environmental conditions using the well proven and reliable DEUTZ air-cooled engine. This makes the set nice and compact as no radiator is required. The other advantages are the ease of maintenance of the air-cooled engine; one does not have to a specialized coolant medium, therefore no risk of corrosion or freezing of the cooling system.

A range of units will be available ex stock from DEUTZ Dieselpower in May 2008. Please contact the relevant DDP sales department for further details and prices about the product.

Maurice Pringle



Customer Support Training & Network Quality Control



To Empower Through Training

We are currently in a transformation phase in the Training department. Our plans for this year are both exciting and challenging. It is important that the training department forms and is

recognized as a very important part of this dynamically growing organization. And as such, there are numerous courses put together to ensure we can provide the best business etiquette at all times together with the knowledge to do things in minimal time with maximum professionalism. We also believe we should work Smarter not harder.

It is our role as the Training Department to identify Gaps in our organization and find ways to cover these gaps with Training. Jannie Bekker and I have recently received certification in training and training assessments: Our qualifications are:

**CTL L3
COD ETDP L4 (HE)
CERTIFIED ASSESSOR L5 and L6**

The new and improved courses that will be available this year will be: Deutz Product Training, Failure Analysis, EMR (Electronic and DVERT), Fault Finding, Basics and Service, Engine (Strip down & Measuring of Components) and Management Training just to name a few.

Currently we are also working on a program for "soft skill" training. My area of focus here is Customer Service. At this point I don't want to reveal too much but I again want to emphasize the point made above on the role we have to play in the organization.

We have recognized that there is a need to skill people and as a result as from the 3rd of March, we are

embarking on the Apprenticeship Program that not only adds value to Deutz / Deutz Dieselpower but our loyal customers. The appropriate candidates have been identified and will start their training soon.

Our Motto is: TO EMPOWER THROUGH TRAINING

Another area under my wing is Product Quality control. Here the focus is on Quality not Quantity and not only within Deutz, but we have to ensure our Goods in Trade Suppliers (GIT) as well as branches comply with the appropriate product quality standards. This is done by performing regular Audits at our branches, with our GIT Suppliers and Service partners.

The team will also be addressing the re introduction of our corporate identity and ensuring that our distinctive brand received the highest possible brand awareness possible

Dirk Jacobs

National Projects



DDP Gensets reach Madagascar

A land of considerable natural beauty including jungles, mountains and unspoilt beaches, Madagascar is certainly a unique country. It is the world's fourth largest island and home to 17 million people. In spite of being isolated from the continent by the Indian Ocean, it cannot escape the typical African problems – issues of poverty, sickness and lack of infrastructure.

Part of this lack of infrastructure includes a drastic shortage of power. This is a factor, which led to a visit to our offices by Dr. Bernhard Romahn and Mr. Pierre Clavier both representing the national Madagascan Power provider, Jirama.

Their purpose was to initiate a project that would involve us building and supplying several generating sets. After clarifying the technical requirements, commercial details, lead times and logistics, the go-ahead was given for us to build the sets. This was the first sizeable generating set project undertaken by Deutz Dieselpower in partnership with Algen Power Generation. A partnership, which proved successful.

The order was for 14 generating sets in total (ranging from 30 kVA to 450 kVA) for continuous application (24 hours a day, 7 days a week, 365 days per year).

All the sets were built with the capability of synchronising and running in parallel with each other.

The sets were built in the fourth quarter of 2007, shipped in batches toward the end of 2007 and were successfully commissioned in February 2008.

Well done to the sales and support team that made the project such a success.

Jaco Hattingh

