

The magazine of Hitachi Construction Machinery (Europe) NV

GC

GROUND CONTROL

Issue 19 Spring 2015 www.hcme.com

HITACHI

Reliable solutions



DEDICATION TO QUALITY

- Canalisation in Senegal
- Recycling in The Netherlands
- Road construction in Germany

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Ground Control is published twice a year and is circulated among 100,000 readers.

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Translation: UvA Talen, www.uvatalen.nl

Printing: Roto Smeets Grafiservices, www.rsgrafiservices.nl

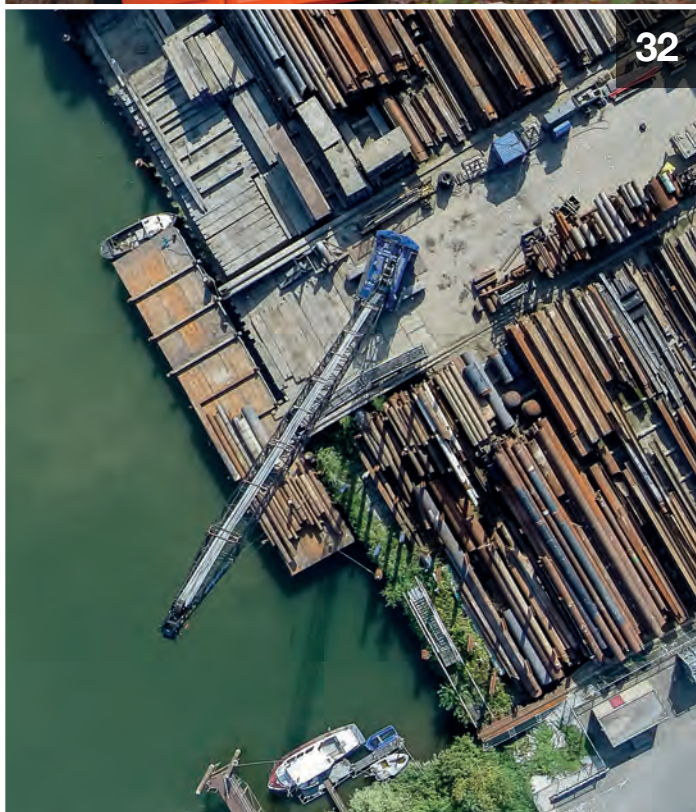
Circulation: Vogelaar Verzendens BV, www.vogelaarverzendens.nl

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NEWS

Visitors to this year's Intermat exhibition in Paris can expect a blockbuster attraction from Hitachi Construction Machinery (Europe) NV (HCME). Stars of the show on the 2,600m² movie-themed display will be Hitachi's first mass production hybrid wheel loader, the ZW220HYB-5, and the new ZX300LC-6 medium excavator (see opposite).

Sharing the spotlight on the orange carpet are the EH1100-5 rigid dump truck, the ZW140PL-5 wheel loader (parallel linkage tool carrier version), three new Zaxis-5 mini excavators, the ZX350LC-5 super long front (SLF) excavator, and the ZX350LCH-5G model developed for the African market. Also making their première at the event are Hitachi vibratory rammers, reversible vibratory plates and a walk-behind roller, and its new range of ground engaging tools (GET).

Introducing the cast

Making its first public appearance at Intermat, the innovative hybrid wheel loader has been designed and constructed at Hitachi Construction Machinery Co., Ltd.'s wheel loader factory at Ryugasaki for the Japanese market.

It incorporates 100% proven technology from within the Hitachi group – including the Shinkansen (bullet train) and EH-series dump trucks – which has been specially developed for the ZW220HYB-5. The main benefits of the hybrid system for wheel loader owners and operators are: reduced fuel consumption; less noise; easy operation; and enhanced safety and reliability.

The latest additions to the Hitachi line-up of mini excavators are the ZX17U-5, ZX19U-5 and ZX26U-5 (canopy version). Ideal for working in confined and narrow spaces, they are also user-friendly for operators. Expandable crawler tracks on the ZX17U-5 and ZX19U-5 contribute to their versatility. Each model is capable of fast cycle times with excellent hydraulic efficiency.

New audiences

The ZX350LC-5 SLF excavator is designed for dredging, maintenance and slope finishing projects. It has a strengthened boom and arm for increased durability. The unique Hitachi TRIAS hydraulic system helps to boost productivity.

Available for the African market, the ZX350LCH-5G is reliable, durable, and highly capable of working in tough conditions and extreme temperatures. The HIOS III hydraulic system delivers high productivity as well as fuel efficiency. The reinforced boom, undercarriage and upper structure provide durability in tough working environments.

Impressive performance

The EH1100-5 is designed to achieve low cycle times and improve efficiency in heavy-duty quarrying and mining applications. It has been built to offer a comfortable and secure working environment, with a redesigned ROPS structure for additional safety. The dump truck also provides easy access for service and maintenance.

Perfect for loading and unloading materials with extensive load control, the lift arm of the ZW140PL-5 provides parallel movement from ground level. It features a new hydraulic circuit for the combined operation of the bucket and lift arm for loading, and prioritises use of the bucket for unloading. A powerful 5.2-litre four-cylinder water-cooled turbo engine enables a powerful digging performance, impressive travel speeds and benefits from excellent fuel consumption.



The new Hitachi EH1100-5 rigid dump truck



Supporting roles

Launched in Europe last year, the Hitachi range of light compaction equipment includes the ZV65R and ZV75R vibratory rammers, the ZV250PR-G and ZV350PR-De reversible vibratory plates, and the TMR65KDS walk-behind roller. They have been designed to provide high levels of performance and durability, and are also easy to operate and maintain.

Hitachi will also present its GET range, which has been designed exclusively for Hitachi mining excavators (EX1200-6 to EX3600-6). Their streamlined profile increases bucket filling and dumping rates. They are manufactured from high-grade steel and are self-sharpening.

In addition, HCME will introduce two remote machine monitoring systems – Owner's Site and ConSite (see page 10). They have been designed to give Hitachi customers an insight into the operation of their machines, helping to improve efficiency.

HCME President and CEO Moriaki Kadoya said: "We're rolling out the orange carpet at Intermat this year to present a diverse line-up of products to the French and international construction markets. We hope visitors enjoy experiencing their dazzling technology and 3D special effects from the comfort of their own VIP seat in our cinema."

Come and see the HCME stand in Hall 6 of the Paris-Nord Villepinte at Intermat from 20 to 25 April. For more information, visit www.hcme.com/intermat2015

Zaxis-6 plays a lead role

The ZX300LC-6 medium excavator will also make its debut on the HCME stand at this year's Intermat exhibition. A rising star among the new Zaxis-6 range, it offers the highest levels of productivity in the 30-tonne class.

The Zaxis-6 excavator range benefits from enhancements made to the popular Zaxis-5 range. The results are a further reduction in emissions and running costs, and even higher levels of quality and durability.

New technology has been incorporated to meet EU Stage IV emission regulations, including the SCR (selective catalytic reduction) system* and the integrated after-treatment device. Fuel costs are reduced by TRIAS II technology, which can minimise loss in hydraulics with optimised pump flow control.

An increased number of attachment modes (now including rotary tilt and tilt modes) result in greater versatility. Several features have been added to improve engine protection and enhance durability, including a spin-on type fuel filter and a larger capacity electric fuel pump.

New equipment, such as a handrail and disconnect switch, makes it easier to carry out maintenance, and an improved OPG Level 2 front guard creates a safer environment for operators.

*Find out more about the new Hitachi Zaxis-6 range on page 7.

NEWS



Long- and short-term **benefits**

One of the first Hitachi ZX85US-5s with 10m long reach carried out essential flood prevention work for the UK's Environment Agency during summer and autumn 2014. On hire from Land & Water and supplied through the Environment Agency's framework supplier, A-Plant, the short-tail swing excavator was used at various sites along the River Medway in Kent, rebuilding new waterway channels, de-silting, cutting weeds, removing trees, trenching and profiling.

Land & Water, the UK's market-leading supplier of long-reach excavators, was instrumental in the development of this innovative machine. In July 2013, it met with Hitachi engineers to agree a specification for these new models to ensure they would meet its customers' expectations and specifications.

"As soon as I had seen the drawings of the radius charts and

lifting capacities of the proposed machine, I was confident to order our first batch of four units," says Richard Maclean, Plant Director at Land & Water.

"Moving on from the Environment Agency's strict plant standards, which came out in September 2013, nearly all of our customers now specify that we can only supply long-reach machines made directly by the manufacturer. These machines fit the bill perfectly. They have more reach and capacity than any similar model on the market, and we trust Hitachi to always produce an excellent machine."

In addition to using only the latest manufacturer-supplied standard equipment, the Environment Agency insists on machines that can use bio oils in case of spills. The ZX85US-5 operates with Panolin biodegradable hydraulic oil to meet this requirement.

ZX470LCH-5 takes **leading** role

A Swiss civil engineering company has invested in a Hitachi ZX470LCH-5 as the main production machine for its sand and gravel pit. The large Zaxis-5 excavator was delivered to Scrasa's Satigny site on the outskirts of Geneva in October 2012 by the country's Hitachi dealer, Probst Maveg.

The ZX470LCH-5 plays a key role in the excavation of up to 1,500 tonnes of mixed materials per day, with two trucks loaded for the maximum 2km haul to the yard. This helps Scrasa to produce 200,000 tonnes of washed materials for general building construction and a further 200,000 tonnes of recycled materials for road construction and concrete production. The four sizes of aggregates are 0.4, 4/8, 8/16 and 16/32mm, and they also mix products according to the needs of their customers and projects.

After testing the ZX470LCH-5 against three other brands, Scrasa opted to add to its Hitachi line-up for three main reasons. "We continue to buy Hitachi excavators that offer value for money and top quality, supported by excellent after-sales support," says Scrasa's Jean Marc Zuccalli, who is responsible for managing the operations on the site.



"Quality is always important, because one day lost in the pit would cost us a lot of money and so it's important that the machine is reliable. Of course we have to consider the cost, but after-sales is also very important, and Probst Maveg is highly responsive and provides an excellent level of service."

Sixth sense

Hiroyuki Kamata (right), General Manager of Engineering at Hitachi Construction Machinery Europe NV (HCME), has played a pivotal role in the design of the new Hitachi Zaxis-6 excavators, the first of which will be presented in Europe at Intermat (see pages 4-5). His main area of responsibility was gathering feedback from the European market on its machine requirements and communicating this to the Hitachi Construction Machinery Co., Ltd. (HCM) development team in Japan. Here he answers six key questions on the new models.



Which Zaxis-6 machines will be launched first in Europe?

The 25- to 35-tonne excavators – which include the ZX250-6, ZX300-6 and ZX350-6 models – will be introduced first. They will be partly manufactured by HCM in Japan, and fully assembled in HCME's Amsterdam factory.

What technological changes have been made to the Zaxis-6 machines to comply with Stage IV emission regulations?

The most significant change is the implementation of the SCR (selective catalytic reduction) system. A urea solution is injected into the exhaust gas of the Zaxis-6 medium excavators to reduce nitrous oxide from the emissions.



An after-treatment device – integrated with diesel oxidation catalyst, urea water mixing pipe, SCR catalyst and silencer – has also been incorporated.

How has Hitachi achieved lower fuel consumption and lower running costs?

Lowering fuel consumption has a big economic impact on the profitability of our customers' businesses. The new Zaxis-6 excavators have achieved up to 10% reduction compared to the current Zaxis-5 models.

Improvements have been made to the TRIAS hydraulic system. Hydraulic loss is decreased by reducing the amount of hydraulic oil returned to the tank due to cooperative control of pump and valve. Two solenoid valves have been added to control pump flow effectively in the new Zaxis-6 machines – lowering the fuel consumption.

How has the performance of the new excavators been further enhanced?

The popular power boost feature has been increased by 10% over normal mode in the new Zaxis-6 models thanks to increased hydraulic pressure, and operators will feel the benefit of this during excavation work.

An increased auto power boost has enhanced the performance of the new machines when they are lifting heavy loads. The amount of automatic pressure boost has also been increased to 10% over the normal setting in the new Zaxis-6 range.

Was feedback from European customers considered in the design of the Zaxis-6 machines?

The feedback we received from European customers and dealers was to increase the engine output to create a more powerful and productive machine. So, for example, the new ZX300-6 has an engine output of 186kW, compared to the ZX290-5 with an output of 140kW. Productivity levels have increased by 14% in PWR mode, while fuel efficiency has also improved.

What has been the reaction from the tests of the Zaxis-6 machines?

We completed ten user tests in a variety of different environments, from high altitudes in the mountains of North America, to the warm climate of southern Europe in the summer and the cold climate of the Nordic countries.

Our first priority was to ensure that the machine worked properly, and the next priorities were the controllability and operating experience. Overall the results were positive in terms of performance. We are confident that Hitachi customers will be happy operating the new Zaxis-6 models.

NEWS

Working on water



A Finnish contractor has selected a Hitachi EX3600-6 for its latest backhoe dredging vessel. Wasa Dredging Oy is a marine offshore and inland water construction company, which has 30 years of experience in specialised dredging operations.

Wasa Dredging's equipment is designed and manufactured for its special applications. The new Hitachi EX3600-6 has been assembled on the Optimus, which was introduced in June 2014. Equipped with an 18m³ bucket, it has been working in Uusikaupunki in south-west Finland, dredging blasted bedrocks, moraine and soft material from a depth of 15 metres.

After five months of operation, the Hitachi ultra-large excavator had 3,100 working hours. Rotator, the Hitachi dealer

in Finland, provides spare parts, service on-demand, scheduled maintenance and follow-up visits with technicians from Hitachi Construction Machinery (Europe) NV.

The EX3600-6 is the largest Hitachi excavator in the Wasa Dredging fleet, which includes an EX2500-6 on another dredging vessel and an EX1200-5 model, assembled on a drilling pontoon. Managing Director Kristian Backlund says: "We like to work with Hitachi, because we have a long and positive experience with both the product and the company."

"The best features of the Hitachi excavators are the high levels of reliability and productivity, as well as easy maintenance. They are also easy and comfortable to operate."

Mini milestone

The 200,000th mini excavator to be produced by Hitachi Construction Machinery Tierra Co., Ltd. has been delivered to German construction company NEWO-BAU. The ZX65USB-5 was presented by Hitachi dealer Kiesel at the GaLaBau landscaping and gardening exhibition in Nuremberg last September.

The Zaxis-5 mini excavator joins NEWO-BAU's expanding fleet of ten Hitachi machines, which includes three Hitachi ZX85US-3s and five ZX225USLC-3s. Founded in 1978, the family owned contractor in Bavaria specialises in utilities for the public and private sectors.

NEWO-BAU's Managing Director Bernd Riedlmeier says, "A strong workforce combined with cutting-edge equipment are the key factors to securing a competitive place in the market. Our new ZX65USB-5s will help to increase the company's productivity, particularly in areas requiring more precise work."

"The other Hitachi excavators in the fleet are working to capacity and need additional support. For every medium excavator, we ensure there is a compact model working alongside it, carrying out smaller jobs such as the installation of utilities on new housing sites."



Joep van den Maagdenberg, Product Specialist at Hitachi Construction Machinery (Europe) NV, was also present at the ceremony to congratulate Riedlmeier in person. "Hitachi mini excavators are known around Europe for their ease of use, comfort and versatility," he adds. "We are happy to see our 200,000th model delivered to a loyal and respected contractor in the German market."

Hitachi roadshow



‘Fit for hard work’ was the theme of the roadshow held by Probst Maveg, the official Hitachi dealer in Switzerland, in conjunction with Scania and Volkswagen. Targeting construction industry professionals, the event was held in three locations across the country, from the end of August to mid-September.

Approximately 750 visitors attended the sites at Weiach, Dizi and Brügg over the course of the roadshow. A wide variety of construction machinery, trucks, vans and other commercial vehicles were available to test drive, including several Hitachi Zaxis excavators and a ZW-5 wheel loader.

Probst Maveg’s Manager Corporate Communication, Christoph

Spahni, said: “The star of the show was the Hitachi ZH210LC-5 hybrid excavator, which was presented to the Swiss market for the first time. Visitors were really interested in the technology behind it, and the reductions in fuel consumption and emissions as a result.”

Other Hitachi highlights included the ZX350LC-5 and ZX470LCH-5 large excavators, the ZX225USRLC-5 medium short-tail excavator and the ZW310-5 wheel loader. These machines were selected to appeal to the main target group, which included sand and gravel plants, and quarries.

Eesti Energia invests in dump trucks

Hitachi Construction Machinery (Europe) NV (HCME) has sold 11 rigid dump trucks to the leading Baltic energy company through its authorised dealer, Rotator Estonia. Eesti Energia ordered the Hitachi EH1100-5 rigid dump trucks to work in the Narva quarry, which is involved with the extraction of oil shale.

The first truck is already in operation and a further three were supplied from the Hitachi factory in Canada at the end of November. Four more followed in December and January, and the final three will follow in July, August and September.

The new Hitachi dump trucks will haul material on an unusually long route, ranging from three to 15km (from loading to tipping), with slope increases of up to 9%. According to the company’s long-term strategy, the length of the route could increase to 25km one-way in the future.

Hitachi will provide after-sales support for the new machines,



including comprehensive parts support and training programmes, via Rotator Estonia.

Malcolm Edwards, HCME Manager of Mining & Quarrying, said: “Rotator already has a wealth of experience in the mining and quarrying industry in Finland, which will support Eesti Energia with all of its after-sales requirements.”

NEWS

New remote machine monitoring systems for **Hitachi** owners



ConSite and Owner's Site are available for a wide range of excavators and wheel loaders

Owners of Hitachi construction machinery can now take advantage of two new remote machine monitoring systems, developed as part of Global e-Service. Available in local languages, Owner's Site and ConSite will be introduced in April 2015 for Zaxis-3 and Zaxis-5 medium and large crawler, and wheeled excavators, as well as ZW-5 wheel loaders.

Global e-Service is an online application that allows owners to monitor their Hitachi construction machinery remotely. The machines send operational data on a daily basis via GPRS or satellite to the www.globaleservice.com website. This allows immediate access to the new and improved Owner's Site, and the vital information that is required to support Hitachi machinery and operations on construction job sites.

As each project is different, the flexibility exists to customise the Owner's Site dashboard to view all the relevant data by defined machine group or job site. The efficiency of each machine will be enhanced by comparing the ratio of operating and non-operating hours to maximise productivity.

The effective management of maintenance programmes through the Owner's Site will help to maximise the availability of Hitachi construction machinery. Running costs can also be managed more effectively by analysing the fuel consumption. Working across different job sites makes planning essential, and the location and movements of each machine are clearly displayed.

An automatic service report – ConSite – sends a monthly email report that summarises the information from Global e-Service for each Hitachi machine. This includes a detailed analysis of the operational data, ratios and hours.

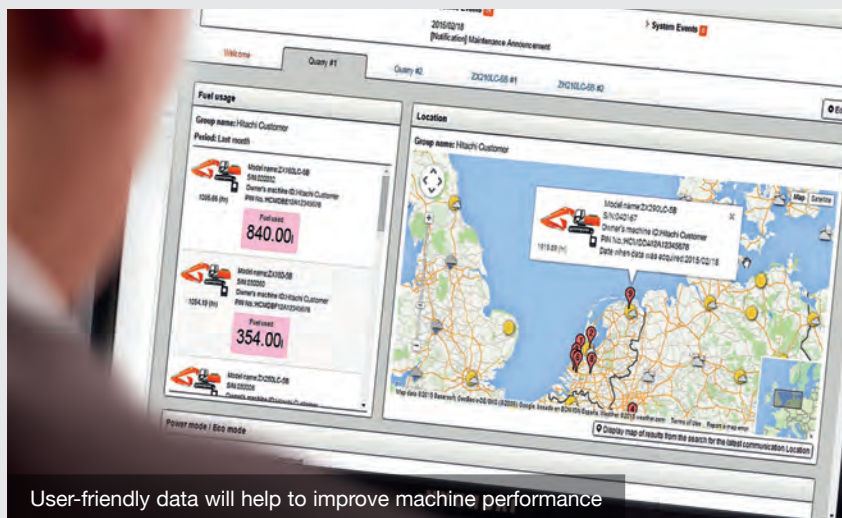
The operational data highlights daily working hours and

fuel consumption in a colour-coded calendar format. This gives an insight into how productive and efficient each machine has performed in the past month.

The report provides statistics on the operating mode ratio, plus a comparison with the previous month for the fuel consumption and efficiency, and CO₂ emissions. There are also non-operation and swing efficiency ratings, and ratios that compare the machine's performance against the same model class in that region.

The ConSite monthly report is also stored in the Owner's Site for ease of reference. In addition, in the unlikely event of a fault, an emergency alarm report is sent to the owner and the local authorised Hitachi dealer for immediate action.

For more information on the new Owner's Site and ConSite, please contact your local dealer.



User-friendly data will help to improve machine performance

Pick of the crop

DEM Senegal (part of the DEM Group, see page 12) has supplied a new Hitachi ZX280LC-5 to the French contractor, CASL, for work on a rice farm. The medium excavator is digging trenches for the irrigation channels that will feed the crops on the expansive site in West Africa.

The project is located off the beaten track and the closest town, Rosse Béthio, is around 50km from the city of Saint Louis in the north of Senegal. The work started in October 2013, with 150 hectares of rice fields already prepared and the potential to develop over 2,000 hectares in total.

"The ZX280LC-5 is working continuously to make an average of 170m of channels every day," says Fabrice Travers, CASL's Workshop Manager. "We're very happy with this high-quality machine, as it has to work hard in this tough environment with the extreme heat and fine sand. It is very quiet, smooth and environmentally friendly."

"As the farm is so remote, our aim is to store all of the spare parts on site. We have to ensure that the machines keep running and so we have a schedule in place for preventive maintenance every 250 hours. This will help us to reduce downtime and increase productivity, with the invaluable help of DEM Senegal for quick response times, a high standard of technical assistance and a plentiful supply of parts."



The ZX280LC-5 is perfect for a demanding environment

The new light compaction range



Rammers



Reversible vibratory plates



Walk-behind roller

Ask your dealer for more information

A strong asset in Africa

Ground Control meets DEM Group's CEO Alain Resclause at the company's new headquarters in Brussels. The official Hitachi distributor in north, west and central Africa is upgrading its personnel and facilities to meet manufacturer standards and position itself as a partner for excellence. The quality and performance of Hitachi construction machinery, combined with DEM Group's commitment to local service and the expertise of its support network, are already proving to be a formidable force



The DEM Group team pictured outside the new headquarters in Brussels

Who owns the DEM Group?

DEM Group is part of SDA (Société de Distribution Africaine), which offers a complete range of high-quality products and solutions, as well as the best after-sales service in 27 African countries. The distributed range covers cars, buses, trucks and machinery for public works, construction and mining, as well as equipment for farming and forestry. SDA has two decades' experience and a wealth of knowledge of the continent, which is a real asset for our partners, customers and suppliers.

What is your current strategy?

Our customers demand high-quality service, so we have re-orientated our network to be closer to their job sites. We started this process in early 2013 and have opened seven subsidiaries in Morocco, Senegal, Mauritania, Ivory Coast, Ghana, Nigeria and

Congo Brazzaville. Our existing subsidiaries in Algeria and the DRC have also been reorganized and reinforced, and we have entered into three distribution agreements in Tunisia, Gabon and Burkina Faso.

DEM Group now employs around 300 people, 260 of whom are based in Africa. The spread of the subsidiaries means that our customers' Hitachi machines can be easily maintained thanks to the large spare parts inventory, as well as the professionalism of our highly qualified technicians.

We have a stock of new machines in Africa – available in the event of an emergency situation – in addition to our central stock in Belgium. Our headquarters has also been strengthened by bringing in experts who have an in-depth knowledge of the challenges facing our operations in Africa. This supports our goal of becoming a trusted partner for our customers.

“Our customers demand high-quality service, so we have re-orientated our network to be closer to their job sites”

Alain Resclause,
CEO, DEM Group



These developments show that DEM Group is committed to a long-term plan with additional investments in infrastructures, such as the project to build a new facility in Abidjan in the Ivory Coast. The territorial coverage plans are not set in stone, however, and there is the possibility of new projects for other areas that have potential in our businesses, such as Cameroon, Liberia, Sierra Leone and Mali.

What has been the effect of this transformation on the business?

Machine sales of 460 units in 2014 were more than double those of the previous year, when the business was transformed and new subsidiaries created. Most importantly, around 95 new customers have opted to work with us and we want to repay their trust by offering a flawless after-sales service.

How has DEM Group's product support service developed?

Although we decided to launch seven new subsidiaries, we still wanted to prioritise the reliability of our after-sales. With this in mind, we have assembled a highly qualified support team and invested in tooling for our workshops and well equipped service vehicles with the aim of being efficient, ready to meet the needs of our customers.

In the near future, 70% of DEM Group's staff will work in our after-sales team. We are also investing in African training centres, for example in Algeria, Ghana, Ivory Coast and the Katanga province (DRC). The long-term emphasis is on large-scale and more theoretical training, combined with the practical training on site thanks to our foremen.

Which sectors of the market are you focusing on?

We are investing in regions where we feel our business prospects are likely to stay strong, despite the inevitable cycle of growth and stagnation, particularly in mining. We are also expanding our portfolio into different sectors, such as public works, construction, mining and quarries, agriculture and forestry, as well as industry and energy.

How has Hitachi's support for DEM Group developed?

Our partnership with Hitachi goes back around ten years. Following our first results from 2014, Hitachi pledged its support for our new expansion strategy, and this cooperation has gone from strength to strength. This is mostly thanks to HCME's improved understanding of the constraints affecting the development of the brand in Africa. Furthermore, the high-quality image associated with Hitachi products is an asset to our expansion.

Describe the relationship with HCME...

Our ambition to become a market leader in Africa, combined with our sales performance in 2014, has helped us to build a strong relationship with HCME. Hitachi shares our long-term vision for the development of the brand in Africa, mainly based on the quality and reliability of our after-sales service. In one year, HCME has reinforced its support in our network and assessed all of our

DEM Group branches

- Main subsidiaries
- Local partners



DEM Senegal: one of seven subsidiaries opened in 2013

sites with positive feedback. Our cooperation and partnership have been strengthened for marketing, logistics, spare parts and support for training technicians.

In the mining and quarrying sectors, we carried out an in-depth study to promote the Hitachi brand to our customers in Katanga (DRC) and Algeria. The first positive results were recorded in 2014 with orders for 20 60-tonne dump trucks from three customers.

We are continually developing our relationship with Hitachi, so that we can approach the world's principal mining companies as a joint force. We will support them as an on-site, after-sales partner, with the aim of offering a single global solution and inspiring confidence in our customers.

How has DEM Group strengthened its team?

We have recruited over 150 people since launching our new strategy, and from now on, our main challenge will be to find the key talent required to bolster our teams. This should prepare us for profitable and lasting growth. Training is integral to our values, and we plan to accelerate our investment in this area, so

we can offer attractive career prospects to the best-performing employees in Belgium and Africa.

What is DEM Group focusing on in 2015 and beyond?

Our long-term vision is to become a market leader in Africa. Ultimately, we want to maintain a high level of quality customer service and our goal of developing rapidly in Africa is based on that assumption. In addition to the structural investments needed in some unstable regions, our main tasks are to anticipate the number of people we will need on the ground, know how to attract talented individuals and keep investing in our staff so that customers recognise the professionalism of our team.

We are also increasing the number of customer visits through our local teams and the sales force in Belgium, both of which are responsible for promoting our company to international customers working in our territories. Moreover, our communication strategy includes the creation of new promotional materials, such as a corporate movie, and our participation in various exhibitions and events in Africa.

A major player in Algeria

DEM Group's largest market is Algeria with business activities representing 39% of the Group's turnover in 2014. Last year also marked an important turning point for DEM Algeria, as it was restructured to take full advantage of the potential in the North African country.

The Group is now represented by two legal entities: a liaison office with six personnel managed by Kemal Saidani, which is responsible for international tenders; and DEM Algeria, a local subsidiary (required by law) with 40 staff working under the direction of Noureddine Gheboul.

DEM Algeria has already become established in key areas of the market – mines, quarries, public works and construction – with large public- and private-sector customers. Its largest

customer is GCB (National Company of Civil Engineering and Building) with a volume of business that represents 10% of the Group's sales.

"We achieved our goal to become a major player in the Algerian market in 2014," says Kemal Saidani. "With this commercial success and the huge infrastructure projects planned by the Algerian Government, DEM Group will continue to invest in Algeria.

"The immediate plan is to strengthen our presence with a new branch office in Algiers and then to create a network of strategically placed service centres. Therefore, our aims for 2015 and beyond are not only to sustain our current activities, but also to further develop our leading position in the market."



The ZX470LCH-5 is a popular model in Algeria



Making a difference

Ground Control visits a French company in Senegal working on a huge network of canals with a varied fleet of Hitachi excavators. There's more to this project than meets the eye, with some arduous working conditions being endured to help restore the surrounding rice fields to their former glory

The Republic of Senegal in West Africa covers an area of almost 197,000km², with an estimated population of 13million. The climate is tropical with two seasons – dry and rainy – and the country owes its name to the 1,790km Senegal River that forms the border with Mauritania and Mali to the east and north.

Having first arrived in Africa more than 60 years ago, Razel-Bec has since worked on road and dam construction, civil engineering and land reclamation projects. It now employs 1,500 people (expats and local employees) in Senegal, Cameroon, Ivory Coast, Benin, Gabon and Ghana.

Five hundred of these employees (including 25 expats) are working for the company – in partnership with Sogea Satom – on the earthmoving and civil engineering contract on the Senegal River Delta (lot three). The site is located near the village of Tabatreize, 20km east of Saint Louis in the north of the country, close to Mauritania.

90.5km canalisation project

Razel is leading the project with responsibility for work on the site and deploying the machinery, while Sogea Satom manages the accounting, administration and personnel. Funded to the tune of 150million CFA francs by the Millennium Challenge Corporation (USA), the project aims to increase rice-growing opportunities in

the area by excavating new canals or rehabilitating existing canals. These measures will negate the effect of bulrushes, which had previously grown to the extent that they blocked the flow of water and inhibited the growth of rice.

In total, there will be 90.5km of canals, with widths ranging from eight to 30 metres, and 8.7km of embankments when the project is completed in June 2015. This operation will involve moving 5million m³ of earth and the implementation of 110 structures of different sizes, consisting of 9,500m³ of concrete and 700 tonnes of steel.

The main 40km canal acts as a drain, which will take polluted water – containing salt from the Atlantic Ocean – away from the Delta of Senegal. This water should mix with the fresh water from the river, as it isn't suitable for agricultural use.

It contains up to 14g of salt per litre, and with fertilisers required to grow the rice, the proportion of salt should be no more than 8g per litre. To achieve this, the water is flushed from the River Senegal via two new canals into the main canal and controlled by a series of dams to irrigate the formerly redundant 40,000 hectares of rice fields in the area.

As part of the tender process to win the contract, Razel and Sogea Satom have also carried out a number of construction projects for the local community. These have included the refurbishment of



“The main advantage of Hitachi machines is better fuel consumption, which makes a huge difference in terms of saving costs – the ZX280LC-5 is more profitable”

Kristen Petillon,
Fleet Equipment Manager, Razel

a football field, building a pumping station and sanitising plant, planting some new trees, and constructing some new roads, a school and a mosque.

Wide range of equipment

The construction activities started in October 2013 and it took a month to reach the full level of production. The project requires a fleet of around 200 machines, including some special equipment that can be operated in water as the terrain has proved to be more difficult than expected. The ground is so soft that the project would be impossible to complete with conventional excavators.

Sogea Satom and Razel have an equal share of the machinery on the vast site, and the latter's fleet are all Hitachi models with between 1,500 and 2,000 working hours each. These include a wide range of standard, super long front and amphibious medium excavators – three ZX240LC-3s, a ZX330LC-3, ZX350LC-3 and two ZX280LC-5s – and a ZW310 wheel loader. These were all supplied by the local Hitachi dealer, DEM Senegal (part of the DEM Group) in late 2013/early 2014.

“I started working in Senegal in June 2013, and my first mission was to recruit the suppliers and establish the structure of the local dealer networks,” explains Kristen Petillon, Razel's Fleet Equipment Manager, who's been with the French company since 2006.



“I had two weeks’ observation time at the site and met with DEM Group’s representative for the first time. I have been impressed with DEM Senegal’s Branch Manager, Boris Sorreau, and have received a good level of service from the new branch office in Dakar.

“It provides us with the help and support we need, and we work together to find the best solutions. One of the technicians from DEM Senegal worked with us on site for nine months to help set up the equipment. He was very helpful and ironed out any of the initial issues that arise with new machinery.

“All of our Hitachi Zaxis excavators have extra-wide tracks, because the ground is so soft that the tracks would sink into the ground and the condition of the track chains could deteriorate as a



Allé Dior Diouf: “The ZX280LC-5 is really easy to work with.”

result. The 800mm (for machines less than 25 tonnes) and 900mm (more than 25 tonnes) tracks are an efficient solution to reduce the ground pressure and ensure that the machines don’t get stuck.

Challenging working conditions

“The biggest challenge is the availability of the machines and we have to monitor the wear and tear on the tracks and other moving components. The key machines are the amphibious models, which suffer most from the challenging working conditions and will have a shorter life expectancy as a result.”

Other difficulties concern the dusty terrain, which is counteracted by using high-quality grease. Production also had to be reduced by half in the rainy season (mid-July until mid-October) although there were only three storms during this period in 2014. In addition, there is the logistical challenge to maintain and fuel the machines, which is carried out by two fuelling trucks that start at 5am each day. It takes two hours to replenish the fuel in the main equipment.

“We have found the Hitachi base machines to be extremely reliable,” adds Kristen. “The standard machines have 98% availability and we are satisfied with the level of productivity. They are also very precise, user-friendly and handle well in this tough terrain.

“The ZX280LC-5s are particularly stable and in addition they are faster than the other machines that they are working alongside. The main advantage of Hitachi machines is better fuel consumption, which makes a huge difference in terms of saving costs – the ZX280LC-5 is more profitable as a result.



The new Zaxis excavators have extra-wide tracks due to the soft ground

“The operators are very good at what they do and treat the excavators with respect. The machines have been fitted with a GPS system, which enables them to complete their tasks with great precision – dependent on the signal, time of day and surrounding vegetation. This also enables us to achieve enhanced productivity.”

Focus on service

The remote location and infrastructure in West Africa heighten the importance of after-sales support for the Razel team. The company employs three maintenance teams – one of which works at night – who drain the oil, change the filters, administer the grease, carry out routine checks and inspect the machines. Their main focus is the amphibious machines, which work 22 hours per day on shifts of 7.30am to 6.30pm and 7.30pm to 6.30am.

“The after-sales support we receive from DEM Senegal is more important than actually buying the machines,” says Kristen. “The main aspect is the availability of the spare parts, support service and technical expertise. All of these things help me to sleep at night! We have to focus on service, especially in Africa, and we are happy



The standard Hitachi machines have 98% availability

that the standard Hitachi machines are working so reliably.”

Razel’s Earthmoving Activities Manager Thierry Sterckeman is responsible for managing the operators and machines. He started working as an operator in 1974 and joined the company in 1987. “The Hitachi Zaxis machines are excellent and they load the trucks efficiently,” he explains.

“The large tracks were a good choice for the soft ground conditions here and the hydraulic power is impressive – especially for the size of these medium excavators. The ergonomic design of the control panel is another strong point, as is the seating position and air conditioning for the operators. The ZX280LC-5 is an ideal size for the work that it does here and the bucket size is good for a standard machine.”

One of Razel’s operators, Allé Dior Diouf, is also enthusiastic about the ZX280LC-5. He uses the machine mainly for earthmoving and digging clay materials to build the embankments. “The cab is spacious and the seat is particularly comfortable,” he says.

“I use the monitor to check the oil and water temperatures, as well as the fuel level and any warning lights. The number one benefits

are the air conditioning and dust-free working environment. All of these features are obviously important in these working conditions.

“The ZX280LC-5 is really easy to work with. It’s fast, productive, powerful and easy to excavate the clay. When I work with this Hitachi excavator, I feel that all of the movements, such as loading and swinging, are better than the other machines on this site.”

It’s clear that Razel’s fleet of Hitachi construction machinery is helping to make a difference to the Senegal River Delta project. The company is benefiting from the reliability of the ZX280LC-5 and other Zaxis machines, the operators are enjoying their comfortable working environments and the community in northern Senegal will gain hugely from this revitalised rice-growing region.



To see a movie of the ZX280LC-5s in Senegal, please visit www.youtube.com/user/HitachiConstruction. To receive a digital version of *Ground Control* with new movies, please register online at www.igroundcontrol.com/subscribe/en



Natural selection

Hitachi is one of the strongest and most renowned brands in the global quarrying industry. The company's engineers in Japan have developed the R series specifically for its large Zaxis-5 excavators working in this sector. *Ground Control* visits a ZX870LCR-5 in Switzerland to find out how these incredibly durable machines perform under the most challenging of working conditions



Lachat's ZX870LCR-5 at the Asuel La Malcôte quarry in the canton of Jura

Hitachi's quarrying equipment is designed and built with the philosophy of delivering optimum reliability and performance to meet customer demand for high productivity. This technologically advanced range encompasses the market-leading large Zaxis-5 excavators, which combine engineering excellence with a dedication to quality.

The R series is an exclusive specification that offers enhanced durability and a long life expectancy. Hitachi has developed reinforced components and added protection to further strengthen the undercarriage and front attachment. It has been designed specifically for the rigours of handling hard and abrasive materials.

Highly durable

The new Hitachi ZX870LCR-5 belonging to Swiss quarrying company Lachat is already performing this task at the Asuel La Malcôte quarry in the canton of Jura. It was founded in 1948 by Louis Lachat, a former road worker who aimed to manufacture and supply a higher quality of asphalt than what was available in the

market at that time.

He succeeded of course and now the company has expanded beyond its initial scope to cover quarrying, recycling and the production of aggregates, bitumen and concrete. It only supplies materials to the Swiss market and its customers range from larger groups, such as Colas and Marti Construction, to local building firms.

The company's headquarters and a team of ten staff are also located at Asuel La Malcôte, with 42 employees working across a total of five quarries within 15km of each other. In the summer months (from early April until October) they work from 6.30am to 5.15pm, and in winter from 7.45am to 5pm. A major milestone in Lachat's history came in June 2013, when it was taken over by the Steiner Group (Frédéric Steiner Holding).

The steep terrain and configuration at Asuel La Malcôte demand a highly durable machine, and the company is expecting the ZX870LCR-5 to work for up to 19,000 hours in this tough environment. Jura is renowned for marlstone – a calcium carbonate

or lime-rich mud, which contains variable amounts of clay and silt – and limestone, and this scenic site contains a mixture of both materials. It is therefore more valuable than Lachat's other quarries, due to the quality and scarcity of this stone for aggregates production.

The current excavation work is focused on clearing an eight-metre layer of better quality limestone-based materials away from the face of the rock to reveal ten metres of spoil (marlstone). Lachat's immediate priorities are to sanitise the site and modernise the quarrying process. The plan is that it will eventually resemble a regular quarry after removing these layers with benches and ecologically sound practices in place to encourage the natural habitat.

These measures were forced upon Lachat after two acts of nature forced a period of inactivity in the quarry for seven years. Part of the mountainous rock face collapsed on to the site below. In addition, the quality of the materials had deteriorated to the extent that they couldn't be used effectively as part of the existing production process.



Lachat's General Manager Yvan Ryser (left) and Quarry Manager Louis Davoust



“There's lots of room in the cab and it's comfortable, especially with the adjustable seat as I'm 193cm tall!”

Christophe Seghin, operator, Lachat

Better value for money

Up until the summer of 2014, it was using materials from another site to feed the aggregates production facilities. However, even though it has had permission to quarry another area nearby, it will now continue at Asuel La Malcôte with the new method of utilising the ZX870LCR-5 to extract, separate and sort the materials. It is also reclaiming the area that suffered most from the fallen rock to make the site larger and more productive.

“The biggest challenge we face here is how to select the usable materials from the mix of stone,” explains Yvan Ryser, Lachat's General Manager. “We used to blast the rock, but that meant that the stone was difficult to sort and this issue is more important to us than the actual amount of materials moved.”

This is where the ZX870LCR-5 comes in. “The new Hitachi machine is excavating materials in a much cleaner way than ever before,” Yvan continues. “So, this means that we are not looking so much at a return on investment, but a return on quality! The machine will help us to achieve our goals and enable us to sanitise this relatively unstable quarry.”

“We wanted to buy a special excavator and make sure that it was the correct decision. So, we tried a ZX870LCR-3 model, which we rented for three weeks from another company, and also went to Germany to see a Hitachi EX1200-6 in action. We decided that we didn't need a machine of that size, but the ZX870LCR-3 was user-friendly and we knew that it was tough enough for our site.”

“The boom and arm are relatively short, which gives us the strength we need to shift, select and load the materials. We also

compared it to another machine working within the group, and we felt that the Hitachi was more powerful and offered better value for money.”

Importance of trust

The ZX870LCR-5 was delivered by the Swiss Hitachi dealer, Probst Maveg, in July 2014. It was supplied with a full service agreement, which was an important aspect of the deal according to Yvan: “We know that we can rely on Probst Maveg, which offers an excellent after-sales service and an immediate response if and when it is required. Our relationship is based on trust and this is just as important as the decision to buy the product.”

“The strength and productivity of the machine have been equally impressive. We previously worked with another supplier, but like all tools, you should always check to see if you have the best one for the job. After testing the ZX870LCR-3, we knew that it was time for a change.”

Lachat has a permit for another two years' work on the site, but they are currently aiming to extend this for a longer period. It has been calculated that the large Zaxis-5 excavator will excavate two million cubic metres of materials over the next five years. Another benefit of the company's latest acquisition is that they don't have to blast the rock and only use a small quantity of explosives if some sections of the face are too hard.

The ZX870LCR-5 loads two articulated dump trucks with its 4.5m³ rock bucket at a rate of up to 300 tonnes per hour, depending on the level of demand. The materials are unloaded into a primary



Lachat will have to adapt its production plant to suit the productivity of the ZX870LCR-5

crusher, which only has the capacity to take 200 tonnes per hour and so Lachat will have to adapt the production plant to suit the machine.

"This process was OK in the past, because we were only supplying local customers on a small scale," says Quarry Manager Louis Davoust, who has been with the company for 15 years. "Now that Lachat has been taken over by the Steiner Group, the changes required to increase and expand our production will start to take place. The new owner has a broad outlook and our operation will soon grow to meet the demand.

"The production used to be 60,000 tonnes per annum, but now we're already aiming for 300,000 tonnes, with as much as 1,200 tonnes currently achievable on some days. As well as being responsible for quality control across the five quarries, I make sure that our production matches the needs of our customers.

"We produce all size of aggregates, from sand to 0/80mm stone for everything from Lachat's bitumen and cement plants to our customers' road construction projects. The ZX870LCR-5 machine is certainly meeting our needs and is responding well to its tasks. We work as a team, so if the operator is happy then I am happy too..."

Strength and power

Christophe Seghin has been an operator for 15 years and he was hired specifically to work with Lachat's largest excavator. "This is a good machine and it's faster than the other similar-sized machines that I've worked with," he says. "The biggest benefit

for me is its strength and power, which enables me to work more productively, and yet it's also stable and precise for the selection of materials.

"There's lots of room in the cab and it's comfortable, especially with the adjustable seat as I'm 193cm tall! I use the rear-view camera continuously, which is very useful for a machine of this size. The fuel consumption is excellent and the auto shut-down feature is a good feature in this respect. I find all of the work modes useful, because I can use the machine to the best of its capabilities. Routine maintenance checks are also easy for all of the necessary consumable parts and other components."

With applications in place with the local authorities for seven new quarrying and recycling projects, Lachat is certain to continue flourishing in the Swiss market. Its latest investment looks set to pay long-term dividends to the Asuel La Malcôte quarry, with the durability and performance to meet the site's increasing production targets and whatever its immediate environment has to throw at it.



To see a movie of the ZX870LCR-5 in Switzerland, please visit www.youtube.com/user/HitachiConstruction. To receive a digital version of *Ground Control* with new movies, please register online at www.igroundcontrol.com/subscribe/en

Investing in the future

Dolphin Metal Separation opted to rent two new Hitachi ZW150-5s as part of a €10million investment programme in November 2014. The company's new wheel loaders are central to the specialist processing operation at its new premises at Harderwijk in The Netherlands.

The firm was founded in 1992 and over the next two decades, it slowly expanded the layout of its previous premises. However, by 2014 the machinery needed updating and the landlord wanted to sell the site. So, Dolphin had the opportunity to move out and invest in an impressive new facility just over 1km away, and adopt a more efficient way of extracting metal from incinerated household and industrial waste.

It stopped production at the end of June 2014, then began the breakdown of the old plant and the installation of equipment into the new purpose-built facility. The upgraded recycling process started in September and the two ZW150-5s were delivered by the domestic dealer of Hitachi Construction Machinery (Europe) NV (HCME Domestic) two months later.

The machines were purchased by the construction company, Vink (one of the largest contractors in the country), which already had a strong working relationship with Dolphin in place. It already owns Hitachi ZW150 and ZW180 wheel loaders, and two ZX350LC-5 medium excavators.

Bart Radema, who is responsible for buying Vink's machinery, says, "Dolphin decided to lease the ZW150-5s from Vink, so that it could have fixed equipment costs. We look after everything on their behalf and are completely flexible to their needs. They trust me and I offer them a one-stop shop approach, ably supported by HCME Domestic's Paul Visscher and his technical support team."

In assessing Dolphin's need for two wheel loaders, Bart considered Hitachi and three other brands. "The price/quality mix offered by the Hitachi proposition was the deciding factor after we had tested the ZW150-5," he adds. "A DPF filter is also standard on this machine and a mandatory requirement in the recycling plant. It is fuel-efficient and the hydrostatic transmission delivers precise movements, which are also important at this site."

Other aspects of the recycling plant were taken into consideration during the order process. These included a high-dump bucket for loading trucks with the end products, deeper treads to protect the structure of the tyres, and anti-clogging radiators and a turbo 2 filter to withstand the fine dust in the confined working environment.

The ZW150-5s were supplied with a three-star service contract covering the powertrain for up to five years/8,000 hours as part of the Hitachi Extended Life Program (HELP). "HCME is responsible



The two ZW150-5s load trucks...



...and work with the untreated materials

The perfect fit

Two Dutch companies have invested in the latest medium Hitachi ZW-5 wheel loaders for their recycling and material handling operations. *Ground Control* visits the two ZW150-5s and a ZW180-5 to investigate why these specific models have been selected for their indoor and outdoor applications



for the maintenance and service of the machines,” explains Bart, “and so we have complete peace of mind.”

Dolphin’s owner, Jan Hooiveld, says, “We’re very happy with the addition of the two Hitachi wheel loaders. Careful consideration was given to the size of the product best suited to this facility and the ZW150-5 is the perfect fit. There is less distance for the machines to travel at the compact new plant compared to the former factory.”

The burnt waste is sourced from incineration plants throughout western and northern Europe, including Germany, The Netherlands, Belgium, France, England, Denmark and Sweden. This contains approximately 2-3% of non-ferrous metals – including aluminium, and heavy metals such as copper, zinc and brass – which Dolphin extracts through a unique separation process.

The first wheel loader works in the hall with the untreated materials, where it loads them into a bunker and stockpiles the different grades from the various suppliers.

The second ZW150-5 is used for loading trucks with the end products: 0-15, 15-35 and 35-80mm of aluminium materials that are delivered into Europe; and 0-12 and 12-80mm of heavy metals that are sold into China and Thailand. The wheel loaders are operated for ten hours per day and help to process 3,000 tonnes of non-ferrous metals per month.

One of the operators, Nazif Orakçi, says, “The ZW150-5’s transmission control system is ideal for this site. It means that the machine is easy to manoeuvre, with precise and smooth movements, which is vital for the confined space in the plant. The overall performance is excellent and the fast operating cycle leads to a high level of productivity. There is good visibility to the front and rear of the machine, and I find that the camera is a useful safety measure.”

Making a significant impact

The road construction, drainage, sewage and groundworks contractor, A Molenaar, bought an ideal machine for its new material handling site in the form of the Hitachi ZW180-5. It has already made a significant impact loading a steady stream of trucks and trailers at sister company Molenaar Zand en Grond BV’s stockyard at Bergambacht, east of Rotterdam.

The new wheel loader was delivered (with a refurbished ZX350LC-3 material handling excavator) in November 2014 by the domestic dealer of Hitachi Construction Machinery (Europe) NV (HCME Domestic). The company’s latest acquisitions have joined an expanding fleet of 12 other Zaxis excavators to supply its own road projects (50% of the output), and meet the needs of other contractors and private customers in the region.

The site is located beside the Lek river and Molenaar Zand en Grond’s first task was to tidy up and prepare the yard for its new business venture. The incoming materials are delivered by boat, with all of the outgoing sand and soil loaded on to trucks. “The emphasis is on sustainability with 80% of the distance covered by the materials on water and only 20% by road,” says owner André Molenaar. “This is a difficult area to access for deliveries by truck and so this is also a fuel-efficient system.”

A Molenaar was founded in 1941 by André’s grandfather, and his three sons (among the 21 employees) are the fourth generation of the family to work in the company. The Molenaars have also had a long and successful partnership with HCME Domestic. André has an excellent working relationship with Hitachi Sales Representative Kees van Vliet and values the trust that has developed between the two companies.

The firm’s first Hitachi excavator was an EX150LC and, after



“No other equipment works as well as Hitachi construction machinery”

André Molenaar,
owner, Molenaar
Zand en
Grond BV



25 years of being a loyal customer, it has purchased a total of 28 machines from HCME Domestic. The ZW180-5 is the first medium wheel loader in the fleet – and the first example of this model working in The Netherlands – as this is the only application that has required a product of this category and size.

“No other equipment works as well as Hitachi construction machinery,” adds André, who also used to be an operator. “These are the best machines and I have no reason to buy another brand. Hitachi is the complete package. HCME Domestic also stands behind its products through excellent service, a favourable total cost of ownership and the emphasis placed on creating solutions should any issues arise.”

Kees recognises that André is a useful reference for other potential Hitachi customers to the extent that he is known as the “other sales guy” in the area. “I see everything through orange-tinted spectacles,” explains André. “Hitachi machines are well designed and look stunning. We work with our machines for around



six years and keep them in excellent condition, so they retain high resale values. Our customers also like to see immaculate equipment on their job sites.

“The operators are happy with the Hitachi machines and that’s the only brand they want to use. The excellent handling, and spacious and comfortable working environment are all important factors. We estimate that the outstanding fuel consumption of the -5 range is 17-18% lower than its predecessor. The auto shutdown is also vital in this respect, for example when operators are frequently climbing in and out of the cab.”

Molenaar Zand en Grond uses the ZW180-5 with a 3m³ bucket and pallet forks. “We rented a ZW250 for three months before deciding to buy,” says André. “This gave us added confidence in our first Hitachi ZW-5 model, which we chose due to its size, loading capacity and ability to drive on the road. This is the perfect machine for the site, as it has the ability to load everything from trailers to trucks, and is easy to maintain.”

His youngest son – and ZW180-5 operator – René agrees, “This is an excellent machine and ideal for the space that we have in the yard. I’m really pleased with the auto-engine shutdown, as I’m frequently climbing in and out of the cab. It’s also incredibly powerful, as well as being quiet and smooth to operate.”

Please note that images may include modifications/attachments, which were made by the local dealer.



To see the Dutch wheel loader movies, please visit www.youtube.com/user/HitachiConstruction. To receive a digital version of *Ground Control* with new movies, please register online at www.igroundcontrol.com/subscribe/en

Versatile, productive and comfortable to operate, the new Hitachi Zaxis-5 wheeled excavators have been designed to meet the highest expectations of European customers. The ZX140W-5, ZX170W-5, ZX190W-5 and ZX220W-5 are suitable for working on – and travelling between – a variety of construction projects. They have been equipped with numerous innovative features that benefit both owners and operators.

Easy to manoeuvre around the job site, or from one location to another, Hitachi Zaxis-5 wheeled excavators can be used for a variety of tasks with different attachments. The attachment support system enables attachments to be fitted and changed easily – it has 11 modes that can be registered on the monitor. The required pressure of individual attachments can also be set.

Several features have enhanced the power and speed of the new Hitachi Zaxis-5 wheeled excavators. The arm recirculation cancel and hydraulic boosting systems have increased the arm speed during operation, for example, and the power boost function has enhanced digging and lifting capacity. Overall, they are capable of higher levels of productivity with better fuel consumption than previous models, thanks to the HIOS III hydraulic system.

To create a comfortable working environment for operators, the cab of the Zaxis-5 wheeled excavators offers enhanced visibility, expanded legroom and wider access, and a heated suspension seat that absorbs vibration during operation. Its large multi-function LCD monitor screen makes technical data easy to view in bright sunlight or darkness, and the rear-view camera enables operators to see immediately below the counterweight.

The perfect choice

Forst- und Baggerbetrieb Horn took delivery of a Hitachi ZX170W-5 in March 2014. It is the flagship machine in its fleet, which includes nine excavators, three wheel loaders and three trucks.

The Ohlsbach-based company, founded by Norbert and Christine Horn, has 18 employees and specialises in landscaping, building driveways and dry stone garden walls, constructing access roads in forests and on farms, and foundation and utility work.

The company had previously owned a Hitachi ZX160W wheeled excavator, with 9,000 working hours. “We were very happy with the ZX160W, and even though we had no doubt in our minds, we thought we would test the new Zaxis model against two other brands before making our final choice,” explains Christine. “The Hitachi came out on top with its overall performance, lifting capacity, compact size and fuel efficiency.

“The main type of work for the ZX170W-5 is excavation and earthmoving – we have the capacity to move up to 3,000m³ – and digging foundations on new housing plots. We are well known in the area for working in cooperation with a local architect, especially on prefabricated houses. It was the best decision that we could have made and the perfect choice for our requirements.”

Operator Marco Volland says, “The ZX170W-5 is the perfect solution for our earthmoving work. It does everything that I need it to do and I can even drive it between sites without the need for transportation – even if it has to move up to 20km/h.

“The cab is quiet, the seat is comfortable and I like to use the air conditioning. The rear-view camera is the machine’s best feature, as it is important for both safety and not damaging the machine in confined spaces. The handling, stability and lifting power are all excellent, and I am fascinated at how well it lifts full loads at long reach.”



“The Hitachi came out on top with its overall performance, lifting capacity, compact size and fuel efficiency”

Christine Horn,
owner, Forst- und
Baggerbetrieb Horn



Wheels of progress

The latest Hitachi Zaxis-5 wheeled excavators are faster, more efficient and easier to use than previous models. Where better to put their capabilities to the test than Germany, the largest market for wheeled excavators in Europe? Three customers explain how the latest models are performing in their competitive construction industry



The ZX170W-5 digging foundations on a new housing plot



“The power and lifting capacity are impressive, and the handling is the machine’s best feature”

Richard Leibold,
operator, Grötz



The complete package

A new Hitachi ZX220W-5 wheeled excavator is proving to be a versatile acquisition for Grötz GmbH & Co. KG. The Gaggenau-based company has utilised the Zaxis-5 machine for a wide range of projects since its delivery in June 2014.

Grötz has 500 employees based at its headquarters and branches in Germany, France, Switzerland and Poland. It serves public and private sector customers for civil and structural engineering work, and road, rail and general construction contracts, as well as the supply of aggregates, concrete and asphalt materials.

The ZX220W-5 was employed on a six-week earthmoving and

drainage job at John Deere’s European Parts Distribution Centre near Bruchsal. Grötz installed an underground drainage pipe and excavated a sand-based pool to take away and absorb rainwater from an asphalt training area that was previously susceptible to flooding.

Excavating 800m³ per day, the ZX220W-5 was the ideal machine for this type of work according to foreman Alain von Bonn: “The Hitachi wheeled excavator is a high-quality product and the complete package for carrying out a wide range of tasks, from digging trenches to loading trucks. It also has to work on sand and then move along the asphalt access road to work on a grass area.”

Operator Richard Leibold says, “I’m really happy with the overall performance of the ZX220W-5. It does exactly what I want it to do, and it is powerful, stable, smooth and fast. The power and lifting capacity are also impressive, and the handling is the machine’s best feature – excellent for a machine in this class.”

“Everything in the cab is great too, especially the low noise levels, air conditioning and comfortable seat, which is very important in a wheeled excavator. I have a good view of the site, tyres and it’s easy to change attachments. The multi-function monitor is also useful for checking the fuel consumption, service information and the rear-view camera, which I use frequently and especially when swinging around.”



"It is a classic machine for working on roads, as it is fast and versatile, and can be used on and off road"

Matthias Schindler,
Director, Joh. Sahler

A classic machine

A two-piece boom Hitachi ZX170W-5 wheeled excavator is the largest Zaxis-5 machine at the disposal of Joh. Sahler GmbH. The Leverkusen-based company has a Hitachi fleet that includes ZX38U-5s, ZX48U-3, ZX85USBLC-5, ZX145W-3 and ZX190W-3 models. Its 50 employees work on road and sewer construction projects for a majority of privately owned and some public-sector customers.

The ZX170W-5 was delivered in July 2014 and one of its first assignments was a road construction project near Leverkusen. The €450,000 contract to build a new roundabout started at the end of September and was scheduled to finish in December. The ZX170W-5 was the only wheeled excavator on the 3,400m² site, which includes 1,500m² of new road, 100m² of new foot and cycle paths, streetlights and the planting of trees.

Director Matthias Schindler says: "The ZX170W-5 is suited to this type of work, and along with the ZX145W-3 and ZX190W-3, we have a range of wheeled excavators to cover the full scale of our operations. It is a classic machine for working on roads, as it is fast and versatile, and can be used on and off road."

The ZX170W-5's operator Mario Tietje has been with the company for 30 years and has 25 years' experience in the cab. "I'm really happy with the overall performance of the ZX170W-5," he explains.



"The cab has more than enough space and a comfortable seat, which is important when working on site for the whole day. It is perfectly suited to this type of road construction work and the best feature is the hydraulics, which work quickly and ensure that the machine is easy to operate."



To see a movie of Horn's ZX170W-5 in Germany, please visit www.youtube.com/user/HitachiConstruction. To receive a digital version of *Ground Control* with new movies, please register online at www.igroundcontrol.com/subscribe/en

High achiever

Hitachi Sumitomo crawler cranes are renowned for their durability and reliability. *Ground Control* visits Dutch company Gebr. De Koning to find out how the SCX1000A-3 is reaching new heights in terms of quality and reliability



The Hitachi Sumitomo SCX1000A-3 in Gebr. De Koning's yard in Papendrecht

On the outskirts of Rotterdam in the west of The Netherlands lies the town of Papendrecht at the crossing of the Beneden Merwede and Noord rivers. It is an ideal location for the headquarters of Gebr. De Koning, which is active in the local market for concrete structure, waterworks and foundation contracts.

The company was incorporated under its current name in 1978. However, its predecessor dates back to 1900 with a long and successful history in “Land, Water, Work.” – as depicted by the headline on the cover of Gebr. De Koning’s corporate brochure.

With a current team of 80 employees and a fleet of Hitachi Sumitomo cranes, and Hitachi Zaxis excavators and cranes, it is versatile to the needs of its largest customers: ProRail (the government body for the national railway network); the Port of Rotterdam (the largest port in Europe); and the City of Rotterdam (the second largest in The Netherlands).

“The flexibility and versatility of the new crane were the key factors in deciding to buy the SCX1000A-3”

Managing Director
Leo van Dijk



More cost-effective and versatile

The latter is known as the “Gateway to Europe”, due to its strategic location at the Rhine-Meuse-Scheldt delta on the North Sea and at the heart of a massive rail, road, air and inland waterway distribution system extending throughout Europe. This also highlights Gebr. De Koning’s potential for its ongoing construction projects, specialising in such structures as bridges, tunnels and quay walls, as well as subcontracting for house building, utility and civil works.

“We prefer to buy rather than hire our crawler cranes, as they are used on most of our projects,” says Managing Director Leo van Dijk, who is responsible for the company’s fleet of machinery. “In fact, we try to keep everything in-house, from the engineering facilities to supplying the concrete and foundation materials. We consider this to be a major strength, in that it makes our proposition more cost-effective and versatile.”

Gebr. De Koning’s most recent acquisition is a new Hitachi Sumitomo SCX1000A-3, which was launched at Bauma in April 2013 and delivered by the domestic dealer of Hitachi Construction Machinery (Europe) NV (HCME Domestic) 12 months later. It is also the first SCX A-3 series model to be working in The Netherlands.

The company bought its first Hitachi crane (a KH100) in 1978 and has enjoyed an excellent working relationship with HCME Domestic since then. Its current line-up of equipment includes the Hitachi KH100, KH150, KH180, KH230 and KH300, and the Hitachi Sumitomo SCX550 and new SCX1000A-3 crawler cranes. In addition, it has four Hitachi excavators: an EX30 mini; ZX210LC-3 and ZX250LC-3 medium crawler excavators; and a ZX210W-3 wheeled excavator.





Price, quality and reliability

"We continue to buy Hitachi machinery, because HCME's reaction time to our requests is good and they are helpful with answering our numerous questions," explains Leo. "We also get on well with HCME Domestic's Sales Representative Mike Moll and of course we have had a positive overall experience with our existing fleet."

"Hitachi is our brand of choice because of the competitive price, high quality and overall reliability of the products. That is why our board of directors makes the final choice for any new excavators or cranes in favour of Hitachi and Hitachi Sumitomo respectively."

Gebr. De Koning makes a purchase decision based on the running costs of an existing machine versus what it would cost to replace it. These amounts are usually quite similar and so the decision can go either way. In this case, they decided to buy the new crane as an additional piece of equipment due to the size and capacity of this 100-tonne model.

"The flexibility and versatility of the new crane were the key factors in deciding to buy the SCX1000A-3," adds Leo. "The reliability and robustness of Hitachi Sumitomo cranes are well known, and they are therefore in demand on a global basis with high residual values."

"The environment is also of paramount importance to us and our customers. When working on a ProRail project for example, the CO₂ emissions are carefully monitored and the fuel consumption is also an important factor."

The main advantage of this type of crane is that it can easily act like a 70-, 80- or 90-tonne machine. This is due to various configurations from six counterweight parts with a cumulative weight of 37.5 tonnes: a bottom plate of 9.5 tonnes, followed by one nine-tonne, two 6.6-tonne, one 2.8-tonne and one three-tonne sections.

The SCX1000A-3 is also easily transportable as it can be loaded (with tracks) on to a trailer suitable for the following dimensions: 3,400mm wide, 12,400mm long, 3,480mm high and with a base machine weight of 52.2 tonnes. This contributes to the efficient assembly and disassembly of the crane when moving between Gebr. De Koning's job sites.

The crane is powered by an Isuzu 6HK1 engine, which is a water-cooled diesel model – with a power output of 210kW at 1,900rpm – that meets the stringent Stage IIIB emissions requirements. It also comes equipped with a diesel particulate filter that automatically captures and burns dirt particles from the air thanks to an oxidation catalyst, which also helps to control the exhaust temperature.

A long and successful relationship

Equipment Manager Martin de Koning's father was one of the brothers who founded Gebr. De Koning and now he is part of a close-knit family connection working throughout the company. "Overall, we are very happy with the reliability of our Hitachi and Hitachi Sumitomo machines," he says. "We have had a long and successful relationship, and a good experience working with these high-quality products."

"This is matched by the quality of service that we receive from HCME. The machines are easy to maintain, and even though we have our own mechanic, we use HCME Domestic's technical support when the machines are new or if we have a more complex job to carry out on one of the older cranes."

Each Gebr. De Koning machine has a designated operator and Corné van der Vlist has been given responsibility for the new Hitachi Sumitomo flagship product. He's been with the company for nine years and a crane operator for the past six.

This was something that he always wanted to do and a natural progression from his previous role. He started working with the older and smaller machines, such as the 30-year-old KH180-2 and so the SCX1000A-3 has proved to be a different proposition.

Smooth and precise

"It's twice as big as any other machine that I've operated before," explains Corné, "and so it's taken me a while to get used to it – the swing motion is a good example. The SCX1000A-3 is very smooth and precise, and the power is more than adequate for lifting and hoisting."

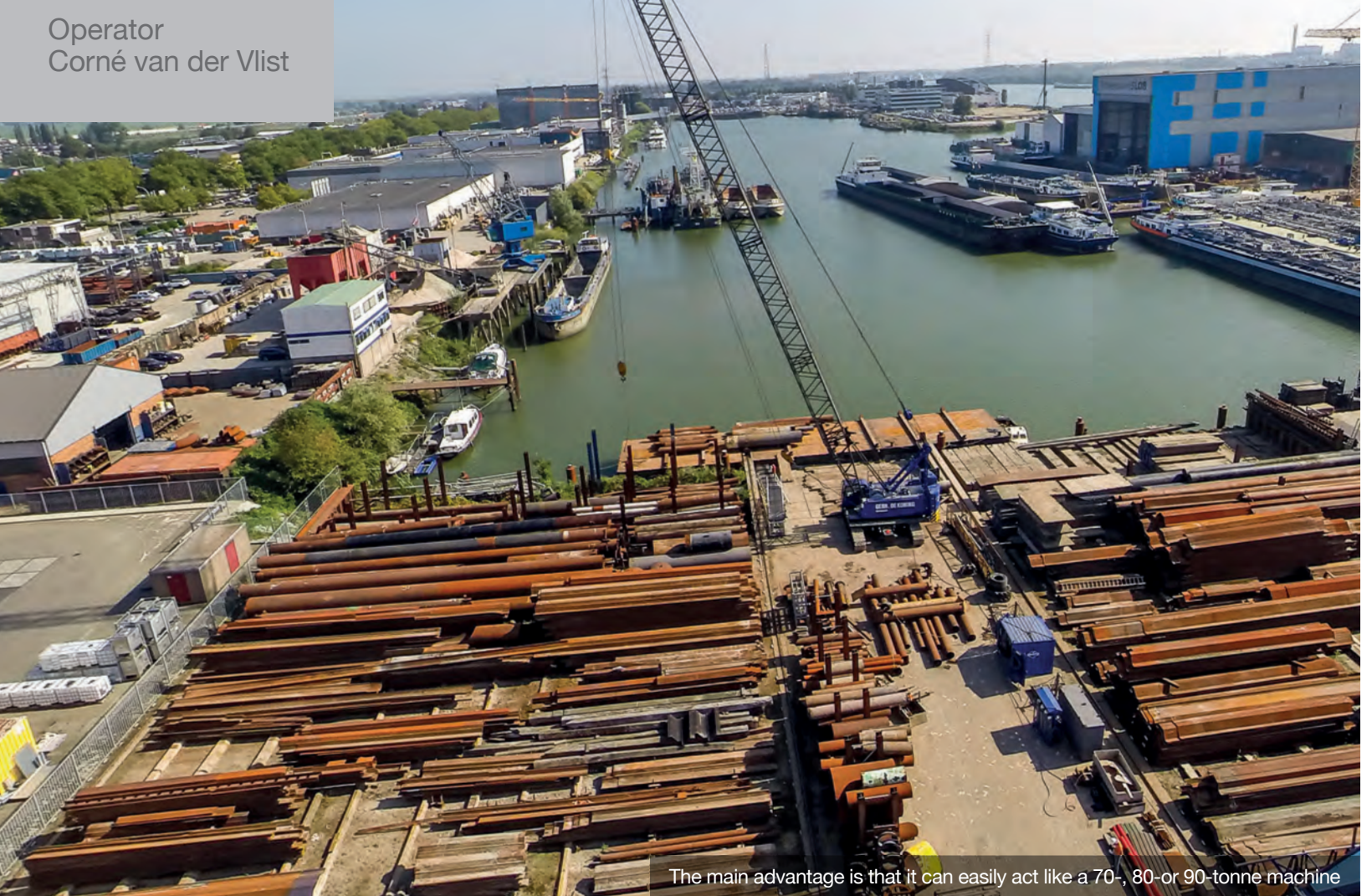
"The view from the cab means that I have excellent visibility of the site and the work that I am doing. The monitor is useful for measuring the height and reach, and this means that it is easy for me to move a load forward, for example by as little as half a metre."

"I feel so relaxed in the cab, because it is such a comfortable and pleasant working environment. The joysticks and pedals are ideal for my natural sitting position, so I don't have to stretch. The joysticks are also advantageous, as I now only need two hands, whereas before it felt like I needed four hands to control the older machine's sticks."

Corné doesn't do any "light" work with the SCX1000A-3 and so doesn't normally use the eco winch mode. However, the idling stop function is beneficial for improving emission and fuel efficiency

“I feel so relaxed in the cab, because it is such a comfortable and pleasant working environment”

Operator
Corné van der Vlist



The main advantage is that it can easily act like a 70-, 80- or 90-tonne machine

on “yard” jobs, such as the task it was carrying out on the day of *Ground Control*’s visit.

The handrails and anti-slip platform on the upper structure of the machine mean that the operator feels safe when he is making routine maintenance checks. Gebr. De Koning also specified the options of a third winch and a wider skywalk on the 30-metre boom (60 metres is the maximum length) for enhanced safety and to make the assembly easier.

With a reliable and durable fleet of Hitachi Sumitomo and Hitachi cranes already in place, the acquisition of the new SCX1000A-3 has added value to Gebr. De Koning’s service offering. The combination of versatile, sustainable and cost-effective features

incorporated into the design of the machine will ensure that it continues to not only meet, but also exceed the company’s expectations.



To see a movie of the SCX1000A-3 in The Netherlands, please visit www.youtube.com/user/HitachiConstruction. To receive a digital version of *Ground Control* with new movies, please register online at www.igroundcontrol.com/subscribe/en

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