

The magazine of Hitachi Construction Machinery (Europe) NV

# GC

## GROUND CONTROL

Issue 24 Autumn 2017 [www.hitachicm.eu](http://www.hitachicm.eu)

# HITACHI

Reliable solutions



## Digging deeper

- Quarrying, rental and recycling
- Zaxis-6 range in France and Germany
- ZW-6 wheel loaders in Denmark and Finland



# GC

## GROUND CONTROL

Issue 24 Autumn 2017 [www.hitachicm.eu](http://www.hitachicm.eu)

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# HITACHI FOCUS

## New Hitachi hybrid hydraulic excavator combines proven technologies with future innovations

Hitachi has presented its most fuel-efficient Hitachi excavator to date – the new ZH210-6 – to the European market. Unveiled at Matexpo in Belgium in September, the ZH210-6 has the lowest ever fuel consumption for a Hitachi medium hydraulic excavator, and has also been designed in response to customer demand for further reduced CO<sub>2</sub> emissions and running costs.

It achieves this thanks to the clever integration of proven Hitachi technology, a new smaller engine, an advanced hydraulic system and a new lightweight arm. Hitachi has made several improvements to the hybrid design, without compromising on the high levels of performance and easy operation for which its excavators are renowned.

### Reduced fuel consumption

Compared with the previous ZH-5 hybrid model, it uses 12% less fuel (in both PWR and ECO mode), and compared with the standard ZX210-6, it offers a 20% fuel saving. The new power unit of the ZH210-6, which integrates the 73kW diesel engine (smaller than the ZH210-5) and electric power assist motor (44kW), has a significant impact on fuel consumption.

The diesel engine output alone is sufficient for ordinary operation, and when maximum power is required for heavy workloads, the electric power assist motor can also be used. This makes the new hybrid model more efficient than the ZH210-5 and the standard ZX210-6.

In addition to the new integrated power unit, a new electrical storage device has also been adopted for the ZH210-6. A large-capacity lithium-ion battery, developed by Hitachi Automotive Systems, Ltd, replaces the capacitor of the ZH210-5. This has significantly increased continuous output to the electric power assist motor, which means it is able to support the engine power considerably and for a greater length of time.

### Proven technology increases reliability

The ZH210-6 also has a new power control unit that uses proven automotive technology. This further enhances the reliability of the new hybrid hydraulic excavator.

A further update from the previous model is the hydraulic TRIAS-HX II system. This has been enhanced for the ZH210-6 to improve the efficiency of the hydraulic system and further reduce fuel consumption. The hydraulic electric swing has also been improved, with an electric motor torque maximum of 220Nm, compared with 160Nm on the ZH210-5. Energy recovery during turning deceleration has been improved by 38%.

### Lower running costs

Unlike the standard Zaxis-6 hydraulic excavators, the ZH210-6 does not use SCR (selective catalytic reduction) technology,

which means fewer additional costs for owners, as AdBlue is not required. Instead the new model complies with Stage IV standards by incorporating an advanced diesel oxidation catalyst (DOC) and diesel particulate filter (DPF).

### Lightweight and durable

The arm of the ZH210-6 hybrid hydraulic excavator is manufactured from high-tensile steel that is 15% lighter than the standard arm of both the ZH210-5 and ZX210-6. This means that less power is required to move the arm, contributing to a decrease in fuel consumption. Hitachi has conducted thorough tests to ensure that the arm maintains the same high level of durability despite the significant weight reduction.

Owners and operators in Europe are currently taking part in user tests for the new Hitachi hybrid hydraulic excavator, which will continue until early 2018. Burkhard Janssen, General Manager Product Management & Engineering at Hitachi Construction Machinery (Europe) NV, is looking forward to positive feedback.

“The ZH210-6 has been developed using proven Hitachi technology combined with future innovations. It brings together technologies from the entire Hitachi group and features industry-leading components to achieve considerably less fuel consumption than previous models,” he says.







Unique sensors [inset] monitor the quality of hydraulic and engine oil in Zaxis-6 medium excavators

## A **first** for the construction industry

Hitachi is leading the way with the development of a first in the construction industry: data extraction from two unique oil sensors, as part of the ConSite remote fleet monitoring system. Designed to reduce the total cost of ownership, the new sensors will enhance customers' experiences with their Hitachi construction machinery. Increased machine availability and reduced maintenance requirements – which will save owners time and money – are the key benefits of this innovative feature.

Developed exclusively by Hitachi engineers in Japan, and available as part of ConSite, the oil sensors check the engine and hydraulic oil of the excavator, 24/7. They provide an indication of whether the quality has deteriorated or if the oil has become contaminated.

The machine transmits sensor data on a daily basis to Hitachi's remote fleet monitoring system, and the customer and dealer are notified via email or text. If a minor abnormality is detected, the dealer will take the necessary actions.

For example, an oil sample can be taken and then sent to a laboratory. From this, a complete analysis is generated so that the exact cause is identified. The dealer can then fix any faults quickly and conveniently on site.

### Reduced maintenance costs

The new oil sensors will reduce maintenance costs by providing a more accurate estimation of when an oil change is required. This is more efficient than a fixed oil change interval. Hitachi customers can be sure of the reliability and maximum availability of their Hitachi machine thanks to the prevention of unscheduled downtime.

"We are delighted to be the first manufacturer to offer our customers this new technology," says Manager Service Business Support at Hitachi Construction Machinery (Europe) NV, Tom van Wijlandt. "We know that reliability and machine uptime are vital to our customers, and the new oil sensors will help to enhance this further. Combined with ConSite, this unique development will also continue to improve user experiences of Hitachi construction machinery."

Initially the oil sensors are available for the ZX210-6 and ZX350-6 medium excavators, but Hitachi will roll them out to other models in the near future. A retrofit kit is also available at Hitachi dealers for the previous generation ZX210-5 and ZX350-5 models. For more information, please contact your local dealer.



# NEWS

## Debut on the Costa del Sol

A quarry on the south coast of Spain is reaping the benefits of its Hitachi ZW310-6 wheel loader. Delivered in June 2016, it is the first Hitachi machine for Connipur SL, based in Marbella. The company extracts and treats limestone for the production of sand and gravel, which is used in general construction and infrastructure projects.

Equipped with a 4.3m<sup>3</sup> bucket, the ZW310-6 has 1,800 working hours. It is used to load trucks that transport the materials to various construction sites, and concrete and cement plants. It also maintains the stockpiles in the quarry, which is located in Ojén.

Co-owner Fernando Moreno chose to invest in this model because he likes the Hitachi brand, and values its reputation of reliability and high-quality Japanese engineering. "What I like most about the machine is its overall performance and more specifically, the fuel consumption," he says.

The ZW310-6 was supplied by Spain's official Hitachi dealer, Hispano Japonesa de Maquinaria, S.L, with a three-year/5,000-hour extended warranty\*, plus an additional one-year/2,000-hour powertrain warranty. "I will certainly consider buying Hitachi machines again in the future," adds Fernando.

The wheel loader is also the first Hitachi for Plant Manager Juan Sánchez, who has more than 20 years' operating experience. "It's very fast and comfortable, and the perfect size for loading trucks of various sizes – not too big and not too small," he says. "The cab offers great visibility and a quiet working environment. The main advantage for me is the air conditioning," he adds.

\*For more information about Hitachi's free extended warranty, please visit [www.hitachicm.eu](http://www.hitachicm.eu) or contact your local dealer.



From left, Juan M Ruiz (Hitarema, a sub-dealer of HJM) and Juan Sánchez (Connipur SL)



## Hitachi is first choice for UK rental firm

Welsh-based Thomas Plant Hire Ltd has boosted its fleet of Hitachi machinery with the purchase of 41 new excavators. Hitachi Construction Machinery (UK) Ltd supplied 31 machines to the rental company in January, with the remaining 10 units arriving in February. The delivery has increased Thomas Plant Hire's fleet of Hitachi equipment to 250 excavators.

Established in 1999, the company has been a longstanding supplier of construction machinery throughout the UK. Working from its head office in Holywell, North Wales, it also utilises a depot in Widnes. Thomas Plant Hire placed its first order with Hitachi in 2002, and the recent purchase includes a ZX300LC-6 medium excavator.

The remainder of the order includes ZX135US-6 medium excavators, as well as ZX26U-5 and ZX48U-5 mini excavators. The new machines will work on a variety of projects, including civil engineering developments and groundworks. In particular, the mini excavators were chosen due to their excellent manoeuvrability.

Thomas Plant Hire attributes its preference for Hitachi construction machinery due to the reliability and high performance of its equipment. In addition, the rental company expressed its satisfaction over the strong resale value of the excavators.

The new Hitachi machines will play a significant role in supporting the company's activities over the coming years and allow it to meet the specific needs of its customers. "We have a busy order book for 2017," says Thomas Plant Hire's Managing Director Wyn Thomas. "The Hitachi machines we've invested in will help us to meet the increasing demand we're experiencing."





## Proven performance over 17,000 hours

Every year, approximately 300,000 tonnes of limestone are extracted at the Schweiger GmbH & Co. KG quarry in Großmehring near Ingolstadt in Bavaria. As only three people are involved in the process, the efficiency of the machines used on site is of vital importance.

Among them is a Hitachi ZX520-3, which is used to quickly load the material in to dump trucks after blasting. Purchased in 2006, the large excavator now has 17,000 working hours. According to Site Manager Konrad Halbritter, the ZX520-3 is “a superb machine. It provides incredibly high levels of performance and it is very reliable. Within 17,000 hours of operation, it hasn’t had any significant issues.”

The quarry also has a ZX350-5 medium excavator with a pulveriser attachment and a ZW310-6 wheel loader. Powerful and easy to manoeuvre, the wheel loader is used to transport material around the quarry and load trucks. “It is a well balanced machine, stable and works extraordinarily efficiently,” says Konrad.

In addition to the quality of Hitachi machines, Konrad is satisfied with the support he receives from the German Hitachi dealer, Kiesel. “If we need service or spare parts, I just call the branch in Eching, where I get what I need very quickly.”

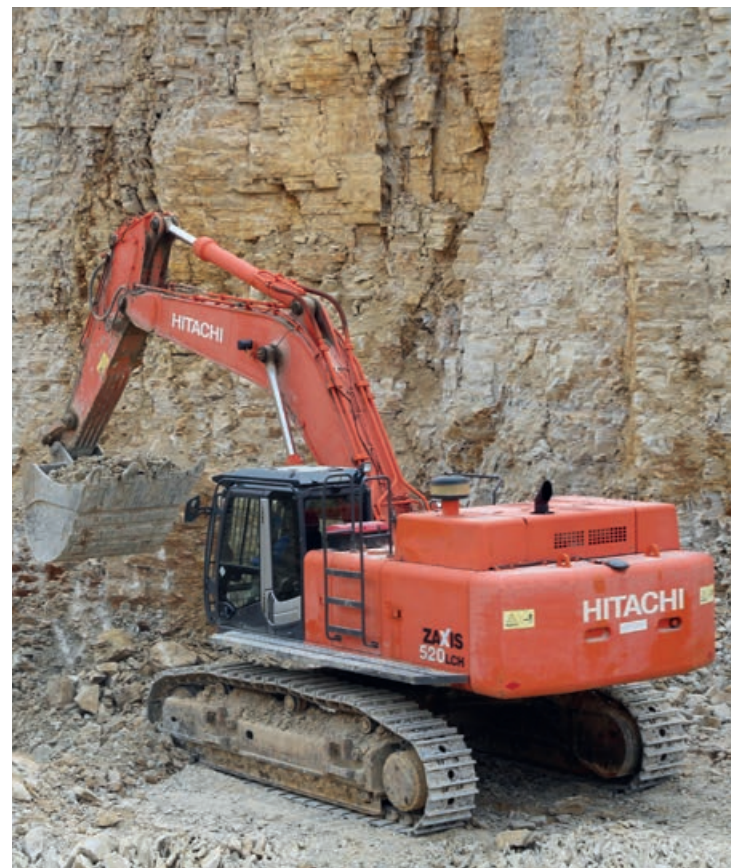
## High levels of precision

A new Hitachi ZX300LCN-6 medium excavator has been delivered to Polish company ARBUD. Based in Wolica Łęgowa, the firm specialises in earthmoving for the construction of roads, drains and storage reservoirs.

The new Zaxis-6 model is the fourth Hitachi to join the ARBUD fleet, following the ZX250, ZX280-3 and ZX350-3. During the past seven years, these three machines have each accumulated between 12,000 and 13,000 working hours. Their high levels of productivity and performance led the company to choose Hitachi once again for its most recent investment.

Equipped with the efficient TRIAS II hydraulic system and an optional two-pump combined flow system, the ZX300LCN-6 is being used on an innovative project near Rzeszów to create well points. It has also been fitted with a Movax SG60V pile driver and Trimble operator guidance system.

Since its arrival on site, operator Artur Czapka has been particularly impressed by the comfort of the cab and the sensitive response of the hydraulic system controls. “It means that even work requiring high levels of precision can be carried out quickly and safely, and without causing fatigue,” he explained.





# NEWS

## Hitachi compact excavators make **history**



From left, Joep van den Maagdenberg (HCME), Raymond Crilly (TBF Thompson), Kosuke Ogihara (HCME), Seamus Doherty (TBF Thompson), Lisa and Declan Colton (Power Grid Civils Ltd) and Martin Vissers (HCME)



From left, Joep van den Maagdenberg, Raymond Crilly, Kosuke Ogihara and Seamus Doherty, with Dan McCaffrey (Balloo Hire Centres) and Tom Sue (HCM UK)

Two customers in Northern Ireland have taken delivery of two special Hitachi compact excavators. Firstly, the 250,000th mini excavator to be produced at Hitachi Construction Machinery Tierra Co., Ltd. in Japan, a ZX85USB-5, was supplied to Power Grid Civils Ltd. Meanwhile, the 60,000th mini excavator to be assembled at the Hitachi Construction Machinery (Europe) NV (HCME) factory in Oosterhout, The Netherlands – a ZX26U-5 – was delivered to Balloo Hire Centres.

Both companies are customers of TBF Thompson, a sub-dealer of Hitachi Construction Machinery (UK) Ltd (HCM UK). It hosted a handover ceremony for the two machines in May at the Balmoral Show, the largest agricultural event in Northern Ireland. Representatives from both HCME and HCM UK attended the event to celebrate the machines' arrivals.

"Both of these machines represent important milestones for our factories in Japan and The Netherlands," says Joep van den Maagdenberg, HCME Product Specialist. "Demand for our compact line of excavators is growing across Europe and we appreciate HCM UK and TBF Thompson supporting us in our goal to increase our market share."

Raymond Crilly, Managing Director of TBF Thompson, says: "We're delighted to celebrate the handover of both machines to our customers. Both companies appreciate the relatively high resale value of Hitachi excavators compared with competitor machines, which is an important factor in the total cost of ownership."

### Reliable for the rental market

Balloo Hire Centres has been a customer of TBF Thompson since 1988 when it invested in its first Hitachi model. The company is based in Bangor with depots in Glenavy, Ballyclare, Lisburn and Belfast. A leading player in Northern Ireland's tool and plant hire market, it has various Hitachi machines in its rental fleet, including a ZX130LCN-6 and a ZX225US-5.

According to owner Dan McCaffrey, the Hitachi brand name

is strong in the rental industry. "I continue to invest in Hitachi construction equipment because of the reliability of the machine in a hire business environment," he explains. "I decided to purchase the ZX26U-5 as the local economy is starting to grow, and we like to offer a fresh fleet of machines to our customers. New machines are guaranteed to have the most up-to-date technology," he adds.

### Versatility is key

Founded in 2012, Omagh-based Power Grid Civils Ltd is a relatively new customer of TBF Thompson and invested in its first Hitachi machine in 2015. The company carries out a diverse range of projects for the construction industry, specialising in civil engineering, foundations and utilities. Its fleet includes a ZX225USLC-5, ZX130LC-6 and other -5 models.

Versatility is an important consideration for new equipment to owners Lisa and Declan Colton. "Hitachi machines allow us to carry out a wide variety of work thanks to their versatility," says Declan. "We are currently expanding our fleet as our business grows," adds Lisa. "The ZX85USB-5 will help us to carry out new work, for which the existing machines in our fleet are too big."







The ZW180-6 sold to VAF in Portugal this year

## ZW partnership for Portugal

The launch of ZW-6 wheel loaders has been welcomed by the Portuguese market and its official Hitachi dealer, Moviter. It has supplied several new models to customers in recent months, with the help of a special promotional campaign and support from Hitachi Construction Machinery (Europe) NV (HCME).

A ZW180-6 has been sold to VAF – Vitor Almeida & Filhos, a construction company specializing in earthworks, road construction, housing developments and aggregate production. The ZW180-6 is working on a production plant and Moviter has received excellent feedback on the machine so far. In addition, a ZW75-6 has been ordered by Operfoz, a port services company operating in Figueira da Foz. The compact wheel loader is the company's fifth Hitachi model.

Portugal's largest wheel loader order this year was for four ZW models to be supplied to EGF, an important group in the country's recycling and environmental industry. Three ZW140-5s and one ZW220-6 will be working on municipal solid waste treatment and recovery centers in Oporto and Lisbon. They are expected to work between 2,500 and 3,500 hours per year and are covered by service contracts provided by Moviter.

"Our commitment to promote Hitachi wheel loaders and the support given by HCME were decisive factors in these sales," says Moviter Sales Manager Rui Faustino. "To build on this success, we are preparing a very attractive financial package. On top of that, Hitachi offers an extended warranty\* of three years or 5,000 hours. It's an excellent opportunity for our customers to invest in Hitachi wheel loaders."

\*For more information about Hitachi's free extended warranty, please visit [www.hitachicm.eu](http://www.hitachicm.eu) or contact your local dealer.

## Hitachi helps unique conservation project

A versatile Hitachi ZX38U-5 mini excavator is playing a vital role at the first elephant sanctuary in Europe. The Premium Used machine was donated by Hitachi Construction Machinery (Europe) NV (HCME) to Elephant Haven in southwest France in September.

The short-tail swing model is required for building fences, digging trenches and creating mud pools on the 70-acre rural site, which will offer rehabilitation for both Asian and African elephants from zoos and circuses. It is also used to excavate trees around a barn that will house the elephants, the first of which are due to arrive in 2018.

The ZX38U-5 is also needed to maintain the sand boxes in the barn and make sand piles on which the elephants can sleep. It will also be used to move tree trunks and logs, and maintain streams and lakes.

Founders of Elephant Haven, Tony Verhulst and Sofie Goetghebeur, welcomed the arrival of the Hitachi mini excavator. "As a non-profit organisation, we depend on donations and sponsorship, and hugely appreciate the generosity of organisations such as HCME," says Sofie. "The excavator will be used for several purposes, both in the short and long term – it's an essential part of our project."

As a growing number of European countries are banning wild animals in circuses, the demand for places at the sanctuary will increase over the coming years. "There are more than 100 elephants in circuses across Europe," says Tony. "We want to offer them a place where they can spend the rest of their days in comfort."

For more details on this project, please visit:  
[www.hitachicm.eu/hitachi-donates-excavator-elephant-haven](http://www.hitachicm.eu/hitachi-donates-excavator-elephant-haven)





## BAG selects Hitachi Genuine GET

**A** German mining company, Basalt-Actien-Gesellschaft (BAG), has decided to equip its new EX1200-6 excavator with Hitachi Genuine GET (ground engaging tools). In summer 2016, the EX1200-6 arrived and was the first Hitachi machine to be delivered to the Brunnenberg site. The machine was supplied by local authorised dealer Kiesel. It is the third excavator of this size in BAG's fleet.

The Hitachi Genuine GET have been developed exclusively for the large and ultra-large excavators – from the 85-tonne ZX890 to the 360-tonne EX3600-6 – to support each model's digging capabilities in a special way. They are manufactured and tested to the same high standards as all Hitachi construction equipment.

Hitachi Genuine GET improve penetration and enhance the overall digging power of the excavator. Their streamlined profile also increases bucket filling and dumping rates to increase productivity and efficiency. Manufactured from a high grade of superior steel, they are self-sharpening and owe their hardness to the casting thickness.

Wayne Partridge, HCME Technical Sales Manager Mining & Quarrying, says: "Hitachi Genuine GET have been designed and manufactured to create a balance between weight, operational wear life and energy efficiency. These features provide a combination that, over each operation cycle, minimises the power required by the machine as a ratio of the total workload and cost per tonne, improving overall productivity."

### Powerful performance

Operator Thorsten Markwart is ideally placed to comment on the performance of the new Hitachi EX1200-6 and Genuine GET. He's been an operator for 16 years on this site and is the fourth generation of the family to work at Brunnenberg – his father, Klaus, is the current Site Manager.

This is the third ultra-large excavator he has operated during this period. As expected, he has had to get used to the operation of the EX1200-6 and the 6.7m<sup>3</sup> capacity bucket.

"The Hitachi has different kinematics to the previous machine and therefore a different loading behaviour," explains Thorsten. "First I had to familiarise myself with the new type of bucket, which pulls the materials towards the machine before excavating them. I'm already adapting to it very well."

Thorsten and four other operators received two half-day on-site training sessions from Kiesel, which helped them to use the front attachment as efficiently as possible. Kiesel, among other things, also provides spare parts for the Hitachi Genuine GET to ensure that there is always a high level of availability for BAG's EX1200-6. A maintenance contract is also part of the package.

### Solid solution

The rock in the Brunnenberg quarry is a tough challenge for any attachment. "The basalt is a hard material that particularly



accelerates the wear of bucket teeth," he continues. "Therefore, the number of working hours that the teeth last is an important factor for the running costs of the machine.

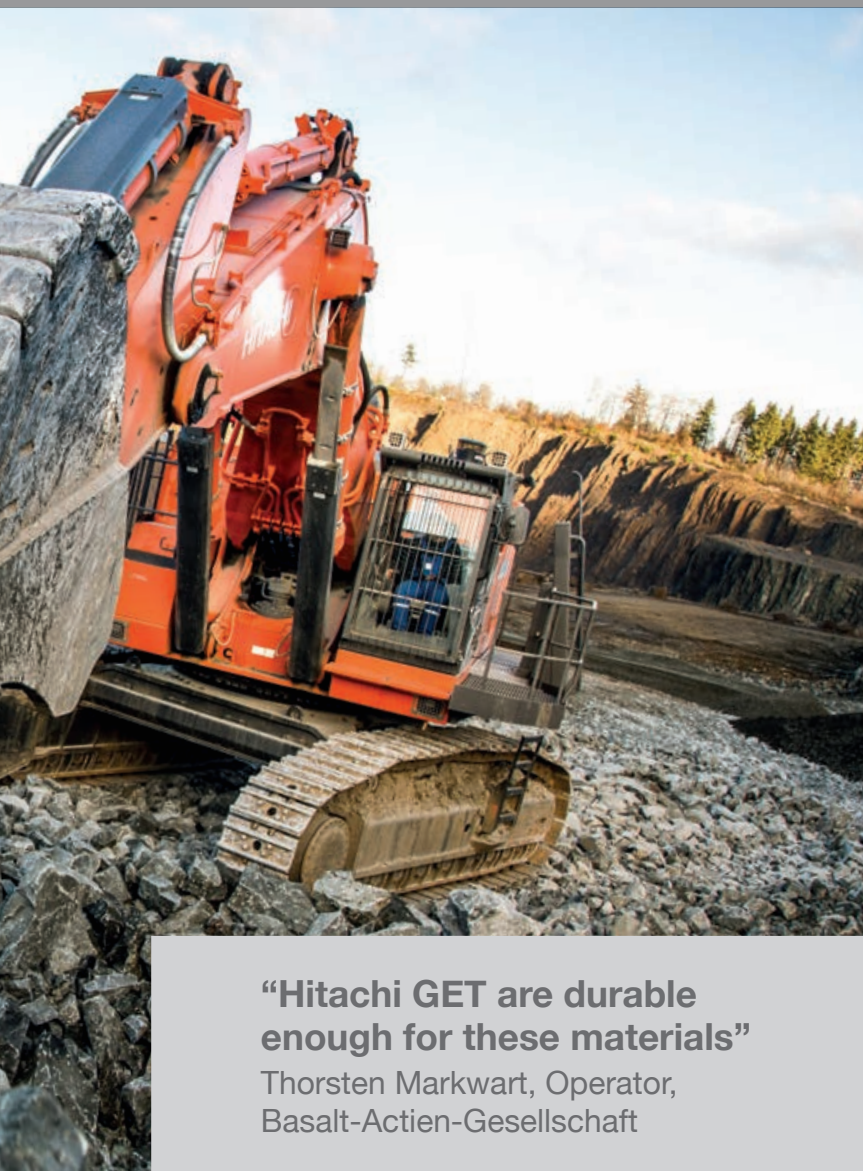
"We expect this to be somewhere between 800 and 1,000 hours. The results so far indicate that we will reach this target with the Hitachi GET and that they are therefore durable enough for this material."

Hitachi Genuine GET have a unique hammerless side-lock system, which results in greater safety when in use. It reduces the time required for change outs/replacements, minimising downtime and maintenance costs. New wear caps and straddle adapters with additional wear protection reduce maintenance efforts even further.

"The side-lock system appears to be very robust," adds Thorsten. "The teeth don't move and there is hardly a possibility that they will fail."

BAG's Brunnenberg quarry dates back to the early 20th Century. As the only production machine at this location, the EX1200-6 supports the excavation of the hard volcanic rock. BAG supplies the material produced there to concrete and asphalt manufacturers throughout its entire sales territory.





**“Hitachi GET are durable enough for these materials”**

Thorsten Markwart, Operator,  
Basalt-Actien-Gesellschaft



SUPPORT CHAIN

**Hitachi Genuine  
Ground  
Engaging  
Tools**



**Hammerless side-lock system available for the ZX890-6 and EX1200-6 to EX3600-6**



**Ask your  
dealer for  
more information**

**New GET products for ZX130-6 to ZX890-6 will also be available from 2018!**



# The perfect fit

Danish rental company Gustav HC A/S has invested in a new Hitachi ZX225USLC-6 for its fleet of construction machinery. Like the other machines that it hires out primarily to contractor Sunds Entreprenør ApS, the latest short-tail swing medium excavator has the versatility to adapt even to the most restrictive of job sites.



**G**ustav HC was established in 2007 in the Danish city of Herning on the Jutland peninsula. Owner Gustav H Christensen started his first construction company in 1974 and his current firm hires out its fleet of Hitachi excavators (with operators) for use by contractors, landowners, builders and private householders.

The new ZX225USLC-6, supplied by Danish Hitachi dealer HP Entreprenørmaskiner A/S (HPE), joined the Gustav HC excavator line-up in February 2017. It works in combination with a Hitachi ZX225USLC-3, ZX140W-3 and ZX18-3 on excavation, utilities and landscaping projects in domestic gardens, yards and other confined spaces.

Gustav's first point of contact with HPE is salesman Flemming

Sørensen, who he met more than 40 years ago. "Flemming was a technician at that time and we have enjoyed an excellent working relationship ever since," says Gustav. "We trust each other – a promise is a promise – and HPE always delivers, which means so much to our business."

There have of course been many changes in the industry over the years, as Gustav reflects, "I started operating in a machine without a cab, so today's excavators are considered a luxury by comparison with their hi-tech working environments. In my opinion, apart from operator comfort and reduced noise, the most valuable addition to our profession is the advent of the quick hitch and tilt rotator."





Henry Povlsen (left) and Gustav H Christensen

The ZX225USLC-3 was Gustav HC's first Hitachi machine and it has now accumulated more than 6,000 working hours since 2007. Within a few months, it was followed by the ZX140W-3 wheeled excavator (4,800 hours) and more recently the ZX18-3 was delivered by HPE in 2016.

The ZX225USLC-6 has a two-piece boom allowing the operator to work closely and very precisely in the area immediately in front of the machine. When combined with a tilt rotator, this increases its versatility for working in confined spaces. The lifting capacity is also ideal for a machine of its size.

### Best possible solutions

"We continue to buy Hitachi construction machinery due to the speed and overall performance of our current and previous Zaxis excavators, as well as the quality of the hydraulic systems," says Gustav. "They are also completely reliable – they never break down – and we enjoy the low cost of ownership. In addition, HPE is consistently providing us with the best possible solutions and each new machine is delivered to the exact specification we require."

Gustav HC is primarily renting machines – for 70% of the working year – to Gustav's daughter, Anette, who is the co-owner of Sunds Entreprenør ApS with Henry Povlsen. The local contracting firm specialises in drainage, earthmoving, demolition and foundation work.

The new ZX225USLC-6 was assigned to one of Sunds Entreprenør ApS's typical job sites on Idrætsvej in the town of Sunds, just to the north of Herning. The contractor was responsible for lifting the old sewage and rainwater pipes from beneath the road and replacing them, before covering the new pipelines over a distance of four kilometres on this and adjoining streets. The four-month project started in February 2017.

"There is a high demand for this type of work in Danish towns," says Henry. "We are regarded as specialists in this field and this track record is important when the water level is as high as it is on this site. It is situated only 200 metres away from a large lake, and if we aren't able to lay the pipes at a depth of 3.5 metres, then the usual solution is to pump the water out."

### Popular demand

Gustav HC and Sunds Entreprenør ApS work together to ensure that the operators are happy with their machines. It is therefore important that they are able to work with the models they prefer. The most popular feature among the operators is the hydraulic systems on the Hitachi Zaxis excavators.

"Hitachi is the world's best construction machinery," says Henry. "I prefer perfection and that's why I've been operating Hitachi excavators for more than 25 years. As the company owner, they never break down and have very low running costs. As an operator, they are luxurious machines to work in. I really like everything about the new Zaxis-6 machine. The cab is extremely comfortable and I'm very happy with the tilt rotator – this is the future way of working."

Henry is very proud of the relationship that Sunds Entreprenør ApS and Gustav enjoy with Hitachi and HPE, and always feels excited when a new machine is delivered on site. "The ZX225USLC-6 hasn't disappointed in this respect," he concludes. "It means so much to me that I am an excavator operator and the business owner – it's not just a job for me, but also a hobby and passion."





# Leading the way

The Hitachi ZX300LC-6 medium excavator was designed to help meet the diverse demands of the European construction industry. As such, it was engineered to provide an effective overall solution on a range of challenging job sites. In the Czech Republic, one machine in particular is demonstrating the model's growing reputation for high performance on a crucial highway project.





**T**he Czech Republic's D1 highway is one of the country's oldest and most important transport links. Incredibly, certain sections of the D1 can even trace their history back to the 1930s. Stretching over 350km, it forms the backbone of the country's automobile network and the wider, pan-European E-road system.

Its standing within the Czech Republic is emphasised by the fact that it connects its three largest cities – Prague, Brno and Ostrava. However, since its establishment, the demands placed on the D1 have changed significantly. Certain sections have since passed their useful service life, and the volume of modern traffic continues to have an impact.

The Czech government has long recognised the relevance of an effective highway system to both the country's economic stability and potential. This prompted a proactive, large-scale development programme in the late 1990s and work continues today.

## Crucial project

As part of a broader governmental initiative that started three years ago, work began on a specific 68km stretch of the D1 in February 2017. ATM CZ a.s. – a contractor specialising in road construction, soil stabilisation and demolition projects – is overseeing a project to widen the highway from two to three lanes.

ATM CZ employs 30 people on the busy site, which is located near the town of Zruč nad Sázavou, and 55km to the southeast of Prague. Based in the city of Hradec Kralove, ATM CZ also counts road milling, earthworks and the recycling of construction waste among its varied business interests. The company's contribution to the D1 project was expected to be completed in June 2017.

The Hitachi ZX300LC-6 was delivered to ATM CZ in September 2016 and is at the heart of activities on site. It is being utilised for earthmoving and grading, for which precision and power is vital. This is supported by the medium excavator's advanced technology and high-quality components, which safeguard a high level of performance without compromising on productivity.

## Dedication to quality

Incorporating unique Hitachi technology, the ZX300LC-6 has the highest output in its class. It benefits from a six-cylinder engine to increase productivity, while the TRIAS II hydraulic system reduces hydraulic loss and increases efficiency. In addition, the machine's user-friendly routine maintenance points and durable components have contributed to its reliability on site.

It is Hitachi's dedication to quality that has endeared the ZX300LC-6 to ATM CZ's Production Manager, Frantisek Tvrdy. With over 20 years' experience in the industry, Frantisek is forthright on ATM CZ's criteria for buying new machinery: "We purchased the excavator primarily because of its reliability. However, we have also seen how happy our operators are when working with the machine.

"In addition, we receive excellent support from NET spol. s r.o., Hitachi's authorised dealer in the Czech Republic and its sub-dealer, Austro Baumaschinen, s.r.o. They've been a dependable service partner to us. We've been so impressed that we're planning to buy another ZX300LC-6 medium excavator next year."

## A superb technical solution

The overall machine package has impressed its operator, Jan Kovalec, who has 27 years of experience with excavators. "The ZX300LC-6 is a superb technical solution, and the control system and hydraulics contribute to an impressive performance. It is user-friendly and has been built for operators.

"I'm really happy to be working for a company that utilises Hitachi excavators, and as a result, the ZX300LC-6. Hitachi is well-known in the industry, and there are a number of recommendations I can make about this machine. For example, it has a strong engine, and offers high levels of speed and power.

"Quite simply, this machine is faultless and we've never had an issue with it. I have experience of operating many other excavators, but for me, Hitachi is number one."



To see a movie of the Hitachi ZX300LC-6 medium excavator in the Czech Republic, please visit [www.youtube.com/user/HitachiConstruction](http://www.youtube.com/user/HitachiConstruction). To receive a digital version of *Ground Control* with new movies, please register online at [www.hitachicm.eu/iground-control](http://www.hitachicm.eu/iground-control)

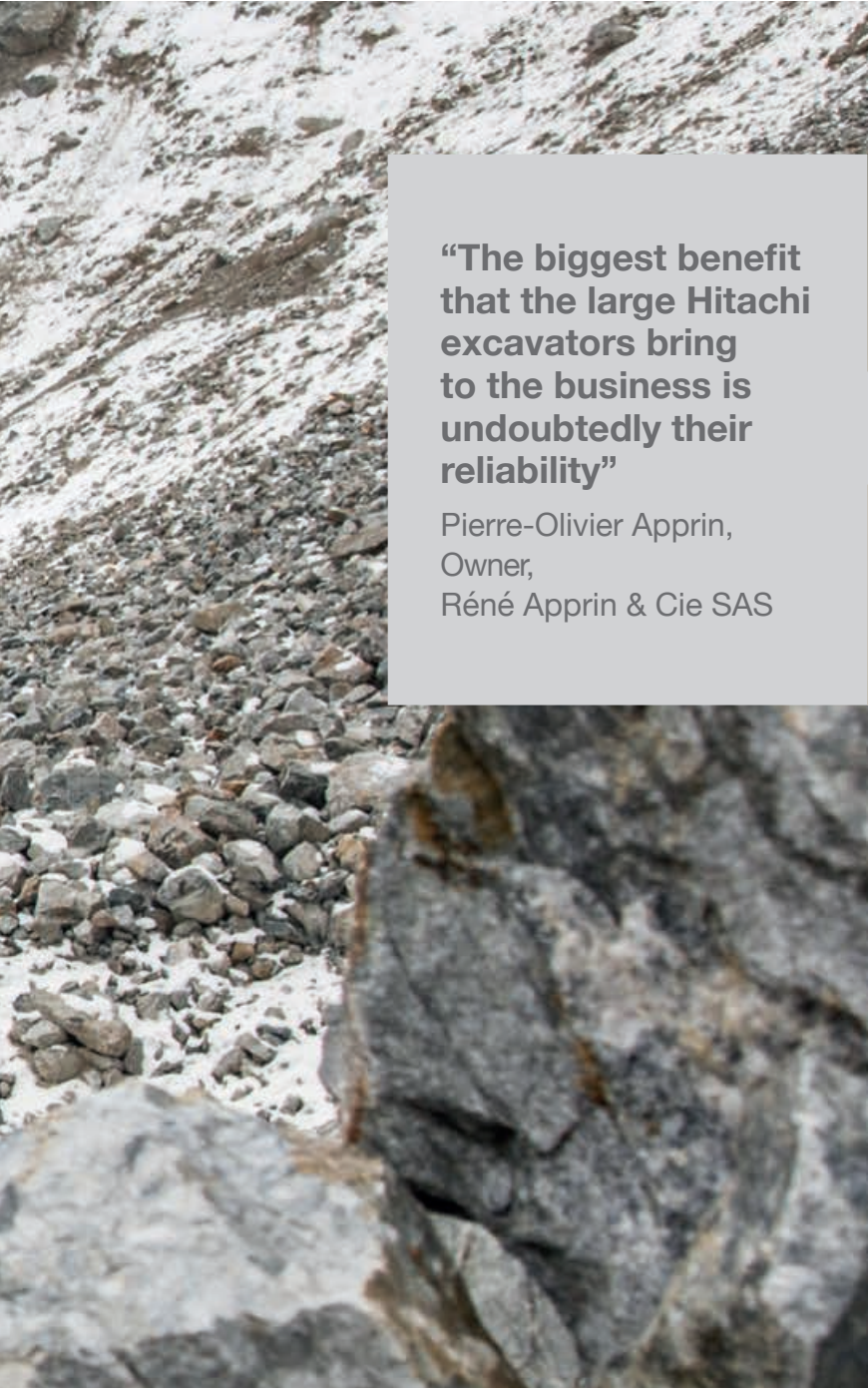




# The complete package

Teramat is the Hitachi construction machinery dealer in one of the most affluent regions of France, Auvergne-Rhône-Alpes. *Ground Control* visits three of its key customers to find out why they are investing heavily in the latest Zaxis-6 range of excavators.





**“The biggest benefit that the large Hitachi excavators bring to the business is undoubtedly their reliability”**

Pierre-Olivier Apprin,  
Owner,  
Réné Apprin & Cie SAS



the region, including Réné Apprin & Cie SAS, Société Lyonnaise de Travaux Publics and Millot TP.

They not only benefit from the complete package of their new Hitachi machines and HELP (Hitachi Extended Life Program), but also share a close working relationship with the Hitachi dealer and benefit from the speed of its response times when required.

### Rock-solid reliability

Réné Apprin & Cie SAS has invested in two large Hitachi excavators for its quarry near Saint Jean de Maurienne, which dates back to 1880. The latest ZX490LCH-6 was delivered to Carrière du Rocheray by Teramat in 2016 with a three-year/5,000-hour extended warranty to complement the company's existing 2015 ZX470LCH-5.

The latest acquisitions are used for breaking (the ZX490LCH-6 with a hammer attachment) and loading the materials (ZX470LCH-5) respectively.

“The biggest benefit that the large Hitachi excavators bring to the business is undoubtedly their reliability,” says owner Pierre-Olivier Apprin. “This is very important to us, as well as how fast and smooth they operate in the quarry. They are strong and durable, and have the capacity to handle large rocks.”

Réné Apprin & Cie SAS extracts up to 250,000 tonnes of granite-based materials each year, with a licence that currently runs until 2034. The rock is hard and abrasive, and used in the top layer of the sub-base for road construction projects as well as the production of asphalt and concrete. The company delivers its materials to the local production facilities of both the Bouygues Group (asphalt) and the Vicat Group (concrete).

Pierre-Olivier is the sixth generation of his family to run the business that began at the turn of the 20th Century. “We've had a positive experience with the ZX470LCH-5 and our team in the quarry really like this Hitachi excavator. When deciding to buy the second machine, we also opted for Hitachi because we preferred to have one brand of equipment. We also appreciate the excellent after-sales service supplied by Teramat.

“I believe that it is important to have regular contact with our suppliers and I have a close working relationship with Teramat's Pierre Mailland-Rosset. He was another factor in buying the latest Hitachi excavator, as he is a very good communicator – especially if we need an immediate response.”

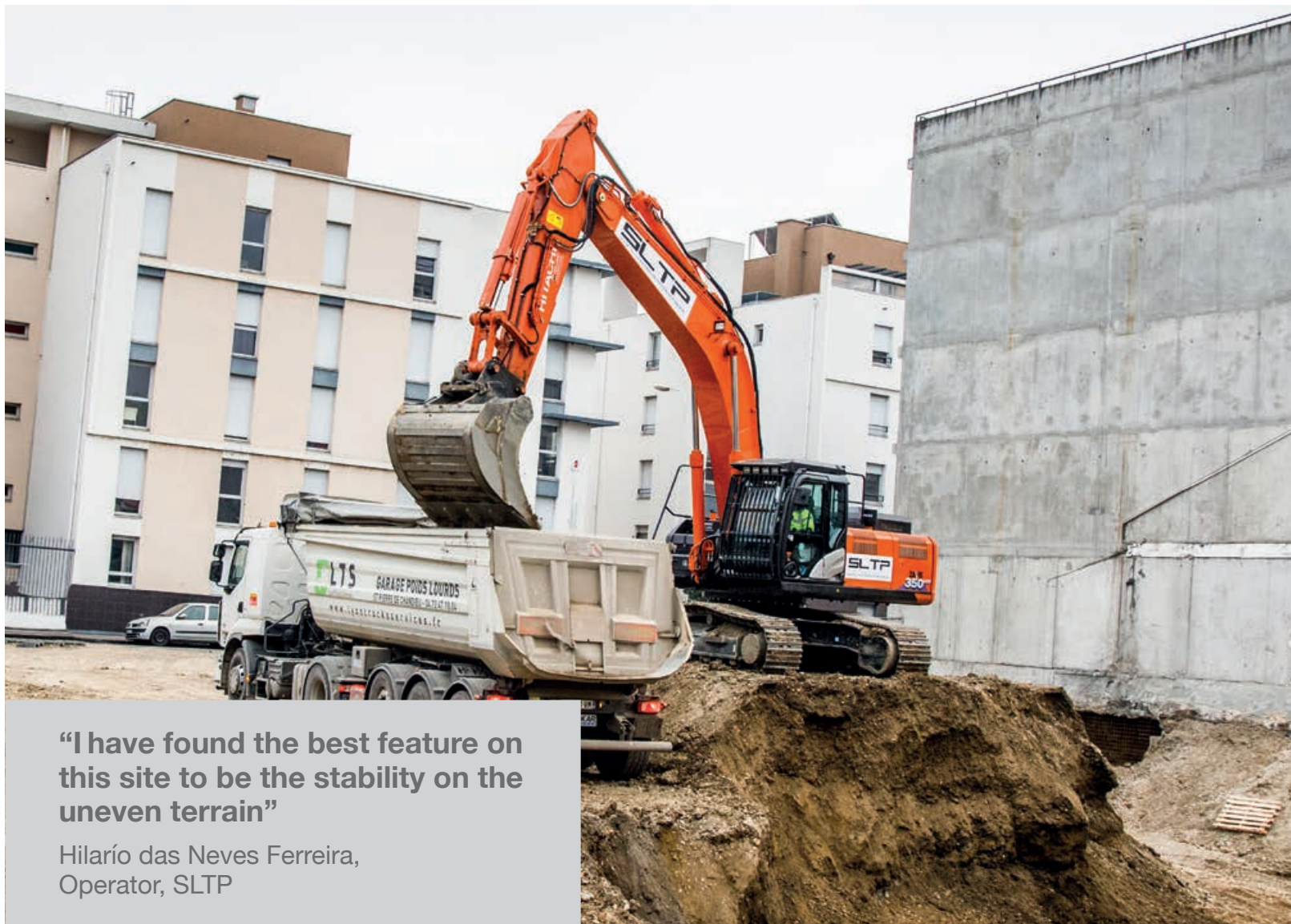
**A**uvergne-Rhône-Alpes covers an area of more than 69,711 km<sup>2</sup> (26,916 square miles), making it the third largest region in France, with a population of more than 7.5 million. It is also one of the largest regions in the European Union (EU) in terms of area, population and the creation of wealth.

It benefits from powerful assets: a strategic position at a European crossroads; the proximity of significant markets; and a remarkable living environment with a young and active population. The high educational level of Auvergne-Rhône-Alpes' inhabitants, and a strong potential for research and innovation, complement the dynamism of the region's economic activities.

In the construction industry, 79% of all employees work in the building sector and the remainder in civil engineering. In 2015, the total turnover of the building industry in Auvergne-Rhône-Alpes was €15.7 billion and €5 billion was spent on civil engineering projects.

The prosperous outlook has also had a positive effect on the sale of construction machinery for Teramat. The latest range of Zaxis-6 excavators is proving popular among a wide range of contractors in





**"I have found the best feature on this site to be the stability on the uneven terrain"**

Hilarío das Neves Ferreira,  
Operator, SLTP



## Hitachi passes the test

Société Lyonnaise de Travaux Publics (SLTP) has purchased eight Hitachi medium excavators and one mini excavator from Teramat since October 2016. Operators from the Lyon-based demolition and earthmoving company have been influential in the selection of five ZX350LCN-6s, two ZX300LCN-6s, a ZX135US-6 and a ZX55U-5 after testing several Zaxis-6 machines against other brands' equivalent models.

The expansion in its fleet of Hitachi construction machinery is also a reflection of SLTP's growth and healthy order book for 2017. Among its large contracts this year are: the excavation and demolition work on the Hôtel-Dieu site on the west bank of the Rhône river; a significant excavation project for the Saint-Antoine car park; and some demolition, but mainly restoration work at the Stade Gerland, now home of the Lyon OU rugby union club.

A ZX350LCN-6 delivered in November 2016 was assigned to one of SLTP's typical projects on Rue Victor Lagrange in the Jean Macé district of the city. The contractor was responsible for the demolition work, loading the materials on up to ten trucks per day and preparing the foundations for the construction of a new building.

The Zaxis-6 excavator's operator, Hilarío das Neves Ferreira, has also worked with a ZX350LC-3 and says, "My first impressions are that the cab is very comfortable. The seat is fully adjustable, there are low noise levels and I like the ergonomic control panel. I have found the best feature on this site to be the stability on the uneven terrain, and it is also very precise for extracting and sorting the demolished materials."

SLTP's CEO Thomas Jean-Louis says, "Our operators tried out several different excavator makes and models – and Hitachi was the only machine that ALL of them agreed on. Their opinion is of paramount importance to us, because they have to spend more than eight hours a day operating each machine. So, we ensure that we give them the tools they want."

"In addition, there is no question that Hitachi construction machinery is outstanding in terms of efficiency, fuel consumption and ease of maintenance – we are very satisfied with our choice. Teramat is also responsive to our needs and they always find a quick solution thanks to an excellent after-sales service. We took out an extended five-year/6,000-hour warranty for all our new Hitachi machines. We are able to monitor our fleet perfectly, and in doing so prevent any breakdowns and therefore unnecessary financial losses."





**“It’s an excellent machine: smooth and fast, and the loading cycle is very good”**

Bruno Lourenço,  
Operator, Millot TP

### Providing perfection

Millot TP has expanded its fleet of construction machinery with the purchase of two new Hitachi medium excavators and a wheel loader from Teramat. The demolition and earthmoving company has recently invested in a ZX300LCN-6 (delivered in October 2016), ZW180-5 (January 2017) and ZX250LC-6 (March 2017) in response to the increase in demand around Lyon.

One of the first projects for the ZX300LCN-6 was on a site for the demolition of a former shopping centre on Rue Charles Porcher in the city’s trendy Saint Rambert district. It was being used for the large-scale excavation of the demolished materials, as well as the groundworks and foundations for the new housing development scheduled for completion in 2018.

Millot TP involves its operators in the early stages of the purchase process to ensure that they have complete faith in their equipment. The ZX300LCN-6 has been allocated to operator Bruno Lourenço, who has worked for the company for four years. This is his third Hitachi machine after previous experience with a ZX210LC-3 and ZX280LC-3.

“I really like the ZX300LCN-6, because it is more powerful than the ZX280LC-3,” he explains. “Overall, it’s an excellent machine: smooth and fast, and the loading cycle is very good. For example, there is no problem in working with around ten trucks per day on this site. The most impressive feature is the way in which I am able to work with this new machine, especially with the precision offered by the hydraulic system. The cab is also perfect: the visibility is excellent and the whole



package is very comfortable.”

Millot TP has had a long history with Hitachi construction machinery, having purchased two UH43 medium excavators more than 15 years ago. The company’s CEO, Daniel Pijot, says, “We continue to buy Hitachi machines because we know the brand so well and have been very happy with our equipment from the beginning. We have purchased other brands in the past, but have always come back to Hitachi as they compare favourably to the competition in terms of ease of maintenance, engine power and fuel consumption.

“The customer service from our Hitachi dealer is also excellent. Teramat is quick to respond to our needs and we always find a solution. In addition, we have developed close working relationships with their commercial and technical directors. For peace of mind, we also opt for a HELP extended warranty and maintenance contract to be supplied with our new Hitachi machines.”





# Built for the job

The first ZX350LC-6 CTA in Europe is working on a high-profile project in Sweden that aims to build one of the best children's hospitals in the world. Contractor Kenneth Kolviken's investment in the new model was based on his confidence in Hitachi construction equipment and his belief in a new way of doing things.



**“Thanks to the sliding cab and the floor window, you can see right over the edge of the shaft. It’s perfect”**

Patrik Backström,  
Operator,  
Kolvikens Gräv AB



In May this year, work began on the construction of a state-of-the-art children’s hospital in Gothenburg. It includes an extension to the original building of Drottning Silvias Barnsjukhus (Queen Silvia’s Children’s Hospital), built in 1973, and offers specialist care for serious conditions including cancer and heart conditions.

The new facility is due to be completed in 2021. Designed to accommodate the needs of staff, it will benefit from modern operating theatres and access to advanced technology. With a firm focus on the needs of children, teenagers and their close relatives, it has also been designed to offer a comfortable and safe healing environment, with inspiring interiors and playgrounds outside.

Those working on the construction project are acutely aware that this is no ordinary building site. Due to its close proximity to the existing hospital, sound and vibrations must be kept to a minimum. For example, in the excavation phase, contractor NCC had to call the hospital every time it intended to carry out blasting.

“Communication with the hospital is important – if they say ‘stop working’, then we stop working,” says Christian Ohlen, NCC Site Manager for Groundworks. “The challenge is to be as smooth and efficient as possible, and respect the people around us.”

Consideration for the surrounding environment manifests itself in the brightly coloured cabins on the construction site, which are intended to appeal to the young patients staying nearby. It’s evident in the wristbands worn by construction workers, in support of the hospital’s fundraising activities, and also the giant parrot that they move around the grounds each week, for the children to spot through the windows.

Such a unique working environment makes an ideal setting for a Hitachi special application machine, such as the ZX350LC-6 with clamshell telescopic arm (CTA). The first of its kind in Scandinavia and Europe, it is owned by subcontractor Kolvikens Gräv AB and has a maximum reach of 25m. It was used to excavate approximately 10,000m³ of earth from 11 metres below ground, which will make way for tunnels that will link the existing and new hospital buildings, and pipe systems for sewage, water supply and rainwater.

### A new approach

The soft yet heavy clay in this area usually makes deep excavation difficult, but the ZX350LC-6 CTA is perfectly suited to the job and represents a new way of doing things in Sweden. “Previously, we would use long-reach excavators for deep shaft excavation,” says owner Kenneth Kolviken.

“However, the CTA excavator has a longer reach (25m compared



to 12-13) and twice the bucket capacity (1.3m<sup>3</sup>) of a long-reach excavator, which makes it more efficient. It loads 25-30 trucks a day on average, with 11-13 passes per truck.”

A further advantage of the ZX350LC-6 CTA is that it requires less swing space than a long-reach excavator, making it more suitable for compact locations. And it does not require the construction of ramps into the shafts for trucks to drive down. “In soft clay, that could be a problem,” adds Kenneth. “This machine makes it much safer, as no roads are required.”

Safety is vital on this site, and the additional features of the ZX350LC-6 CTA are also beneficial. Visibility from the cab is one of the first things that operator Patrik Backström comments on.

“Safety is of course the main thing; thanks to the sliding cab and the floor window, you can see right over the edge of the shaft, it’s perfect,” he says. The cab is positioned 96cm further forward than on a standard ZX350 excavator and can also slide a further 130cm, giving a clearer view of the ground below.

The visibility of the machine on site is enhanced by additional lights placed at the rear and at the top of the telescopic arm. This is because of the hospital’s helipad – helicopters must be able to see the highest point when they are flying overhead. These features (and an additional camera in the cab) were added by the official Hitachi dealer in Sweden, Delvator.

Quiet operation is another important factor for the surrounding environment and from an operator’s perspective. The Hitachi special application machine rates highly in this regard. “In the cab, it’s super quiet,” says Patrik. “Sometimes I wonder if the engine is actually running!”



From left, Patrik Backström and Kenneth Kolviken (Kolvikens Gräv AB), Christian Ohlen (NCC) and Claes Gustafsson (Delvator)

## Seeing is believing

With 20 years of operating experience, Patrik was closely involved in the decision to invest in the Hitachi CTA model. As well as watching YouTube videos of the machine at work, he and Kenneth went to Italy to see similar models in operation with Delvator Sales Manager Claes Gustafsson.

“We saw the ZX225 and ZX210 working to depths of 9 and 22m. Even though these were smaller models to the one Kenneth was considering, I thought it would be worthwhile,” says Claes. “Within ten minutes of seeing the machines in action, Kenneth and Patrik were convinced they would be making the right decision.”

“We didn’t know what to expect, initially,” admits Patrik. “However, seeing it at work was really helpful, and we got the right answers to our questions. We thought we would need many additional features – as we usually customise our machines in Sweden – but when we went to Italy, we realised we didn’t need most of the things on our



list. The machine was simply built for the job.”

The ZX350LC-6 CTA is the latest addition to Kenneth’s Hitachi fleet, which includes the ZX140W-5 wheeled and ZX33-5 mini excavators. His relationship with Delvator and Claes dates further back, however. Claes sold his first Hitachi model, a ZX180, to Kenneth after he started working for Delvator in 2004. Since then, the two have been in almost daily contact and are now firm friends.

“Kenneth is a great ambassador for the Hitachi brand and is a big influence in the area,” says Claes. “He may have taken delivery of seven Hitachi machines over the years, but it’s likely that he’s contributed to the sale of many more – I owe him a lot!”

Kenneth’s past experiences with Hitachi machines were also a factor in his decision to buy the CTA model, therefore. “Over the years, I’ve noticed small and subtle improvements to the design of Hitachi excavators, but the quality has always remained high,” he says.





“The hydraulics make it easier to do a good job, and I’ve never had any breakdown issues or unscheduled stops, so they are extremely reliable. And the service from the Delvator workshop in Gothenburg is also very good.”

His latest investment gives Kolvikens Gräv a significant advantage over its local competitors. Two months after its delivery, other companies were already contacting Kenneth and Patrik to ask about the performance of the ZX350LC-6 CTA. “We can dig deeper than anyone else,” says Patrik. “It’s great to be the first to have this machine and say, ‘come and see for yourselves’.”

Their colleagues from NCC have also been impressed by the machine’s performance. NCC and Kolvikens Gräv often work together on various construction projects in the Gothenburg area, and the new CTA model is expected to prove useful for several forthcoming projects in the city and further afield. These include a new railway line, requiring a 25m-deep tunnel to be built, as

well as harbour works in the city.

“I’ve been very impressed by the Hitachi excavator,” says Christian. “Thinking ahead to projects in the region and nationwide, we can see how this machine would be beneficial. We’re really pleased with Kenneth’s vision and his enthusiasm for this new machine. It’s new ground for most of us, but sometimes you have to jump in at the deep end. One of NCC’s company values is to be visionary, and this Hitachi fits in with that perfectly.”



To see a movie of the Hitachi ZX350LC-6 CTA excavator in Sweden, please visit [www.youtube.com/user/HitachiConstruction](https://www.youtube.com/user/HitachiConstruction). To receive a digital version of *Ground Control* with new movies, please register online at [www.hitachicm.eu/iground-control](http://www.hitachicm.eu/iground-control)



# All-round quality

Jysk Kloak Entreprise ApS (JKE) has taken delivery of a new Hitachi ZW220-6. After testing the latest in wheel loader technology before deciding on the optimum capacity to meet its needs, the Danish contractor was convinced about the machine's quality, power and versatility.



**B**ased in Tjæreborg, near the seaport town of Esbjerg on the west coast of Denmark, JKE is a specialist sewage and landscaping contractor owned by Jan Christensen. He started the company in 2006 after passing the necessary qualifications and obtaining his sewerage licence, which allowed him to work on various types of utility projects.

JKE has grown from employing four people and owning one ZX25 mini excavator – supplied by the Danish Hitachi dealer, HP Entreprenørmaskiner A/S (HPE) – to 15 personnel and the current fleet of nine machines. These include a Hitachi ZX250LC-6 medium and three mini excavators (ZX10U-2, ZX18-3 and ZX27-3)

delivered in 2014-16. The latest acquisition, a ZW220-6 wheel loader, was delivered in 2017.

Jan's father, Jon, used to run a gravel pit company, which meant that he was born into the construction industry. Consequently, he has gained experience of operating many different types of construction machinery over the years.

The decision-making process for the ZW220-6 was unusual as Jan explains: "In Denmark, contractors like to try before they buy and it's also important that the test machine arrives quickly from the dealer. We had tried a ZW180-5 and then opted for the ZW220-6, as we were considering a larger machine with more power."





## High expectations

"However, we were so busy in the run-up to a family holiday to celebrate my father's 70th birthday that we didn't get around to speaking with HPE in time before we left. So, the order was eventually confirmed with our main point of contact, Carsten Jacobsen, by telephone, 8,470km away from home in Thailand!"

Most of JKE's work is carried out on behalf of the public sector, but it also provides invaluable support to other contractors. "We enjoy excellent working relationships with our customers and this is due to thorough preparation, high quality and delivery on time.

"To develop these relationships further, we need to maintain our high levels of reliability and service. In addition, we have the same expectations of our suppliers. For example, if we call HPE for Hitachi spare parts, the response time needs to be prompt so that we won't stand still."

The family business has always been loyal to HPE and Hitachi, as Jan continues, "The most important thing about Hitachi is that I know the machines are of the highest quality. They are completely reliable, so there is no need to consider other brands of construction equipment."

After testing HPE's ZW220-6 demonstrator, Jan decided to keep the same machine. It was fitted with additional lights and a larger 4m<sup>3</sup> bucket before the official handover in February 2017. In addition, JKE opted for a 5,000-hour/three-year extended warranty and service contract.

"The ZW220-6 was the right choice, as it has more power and torque than the smaller model," says Jan. "We needed the most versatile model available for our requirements."

"As the latest machine on the market, it has also been designed with the environment in mind. Our competitors have wheel loaders fitted with diesel particulate filters, which need to be regularly cleaned and replaced, whereas all we have to do is top up this machine with AdBlue®".

## Excellent support

"The operator likes the new wheel loader and it's working really well. It is powerful, fuel efficient and we've not had any downtime, which is of course so important to our business. There is also strong support from HPE with excellent availability of genuine spare parts and its professional technicians know the machines inside out."

One of the ZW220-6's first jobs was to assist with the construction of a new extension to a small shopping mall. Its primary function was to clear the excavated materials, which have initially been moved to the area surrounding an adjoining car park, due to the limited space on the site. Once loaded on to JKE's trucks, the materials were dumped into an old quarry, which is being restored to its natural state.

The machine's dedicated operator, Henrik Svenningsen says, "I drove another brand of machinery for 15 years and I am pleasantly surprised how much I like the new Hitachi wheel loader. It is powerful, smooth to operate and the cab is spacious."

"It is a strong machine and can lift about eight tonnes of materials without effort – I really can't feel that it is under any strain when fully loaded. It is stable and well balanced, and there is excellent traction."

"When loading trucks on this site, it is precise and doesn't spill any materials. It also feels safe, with excellent visibility thanks to the rear-view camera, and is easy to operate. I like the design of the controls and I'm happy working in this machine, especially with the radio playing in the background."



To see a movie of the Hitachi ZW220-6 wheel loader in Denmark, please visit [www.youtube.com/user/HitachiConstruction](https://www.youtube.com/user/HitachiConstruction). To receive a digital version of *Ground Control* with new movies, please register online at [www.hitachicm.eu/iground-control](http://www.hitachicm.eu/iground-control)





# Peace of mind

**Baggerbetrieb Fred Walther has faith in the quality and reliability of Hitachi construction machinery thanks to the support of its local authorised Hitachi dealer, Kiesel. *Ground Control* visits the German contractor's latest addition to its Hitachi fleet, a new ZX300LCN-6 medium excavator, working on a recycling site in Karlsruhe.**

**B**aggerbetrieb Fred Walther was founded in 1995 and currently has ten full-time employees. Based in Pfinztal in the district of Karlsruhe, the company offers excavation and demolition services for various construction projects.

Since buying its first Hitachi excavator – an EX30 mini excavator in 1995 – Baggerbetrieb Fred Walther has expanded its fleet of Zaxis machines to six models. The most recent acquisition, a new ZX300LCN-6, was delivered by Kiesel in 2016 to join the ZX210LCN-3 crawler and ZX190W-3 wheeled excavators, as well as the more compact ZX30, ZX50 and ZX85 models.

The company has been working closely with Kiesel for more than a decade – ever since it first became a Hitachi dealer. It maintains and services its own machinery after the end of the manufacturer's warranty period and buys Hitachi genuine parts from its local Kiesel branch.

The ZX300LCN-6 has been allocated to an asphalt recycling site, where it is used to separate and break up the materials, so that they can be loaded on to a mobile crusher. Baggerbetrieb Fred Walther has been contracted on this particular project for more than five years as a contractor for Südwest Asphalt GmbH & Co. KG.

"This is a very good machine," says owner Fred Walther. "The most significant and positive development is the bigger engine compared to the previous model, which we used to rent. We opted for the new ZX300LCN-6 because we needed a machine of this size and capacity."

## Completely reliable

"We continue to buy Hitachi machines because they are of the highest quality and so reliable – and this is matched by the quality of service from Kiesel. Our ZX210LCN-3 has around 5,500 hours and hasn't





needed any repairs whatsoever. Our Hitachi mini excavators have also been completely reliable.”

To illustrate the importance of reliability to his company, Fred explains, “When you have ten trucks dependent on the performance of one excavator and it stops working, then the downtime could prove to be very expensive. With some of the tight deadlines imposed by our customers, we are always under pressure.”

Fred is also keen to highlight the excellent working relationship he enjoys with Kiesel, “I really like the people at our nearest branch. They are very cooperative, and we get all of the parts and support that we need on an ongoing basis.

### Service is vital

“When we need an answer to a question, the response time is often

critical and this is what counts the most – a machine is nothing without the service to go with it. Fortunately, this part of our operation is going well and gives me the peace of mind to concentrate on the other parts of the business.”

Torsten Jost has been an operator since he joined Baggerbetrieb Fred Walther in 1998 and he has been entrusted with the new ZX300LCN-6. “The power, speed and overall efficiency of the machine have impressed me most,” he explains.

“It’s also very precise and responsive, which is just what we need on this site. The hydraulic system is the best ever – and this is not just talk – it is very easy to operate. In addition, the cab is extremely comfortable and the controls are within easy reach.”



A large orange Hitachi excavator is shown in a quarry, loading a dump truck with rocks. The excavator's arm is extended, and its bucket is filled with dark, jagged rocks. The dump truck is also orange and is parked on a pile of similar rocks. The background shows a deep quarry pit with more rocks and a clear sky. The excavator's arm has the word "HITACHI" written on it in white. The dump truck has the number "105" on its side. The overall scene is one of active construction or mining work.

# Looking to the future

A loyal Hitachi customer in Italy has replaced two of its Zaxis-3 medium excavators with two new Zaxis-6 models at its basalt quarry. After only one week of operation, the advantages of the new machines – combined with HELP extended warranty and ConSite – were clear to the owner and operators of Basalto La Spicca SpA.



**“It has more power,  
and is more stable  
and precise”**

Constantin Rotaru,  
Operator,  
Basalto La Spicca SpA



**T**he small city of Orvieto is perched on a rock cliff in a picturesque location in southern Umbria, Italy. The area is renowned for the basalt quarry situated here, which started in the 1960s. Enormous amounts of igneous rock have been used to construct many of the buildings in the city.

Today, however, half of the quarry's materials are used to produce stone to be laid around rail tracks and the other half for aggregates used in the production of asphalt. A significant proportion of asphalt is now made from basalt as it helps to drain rainwater from the road's surface.

To cope with the steady demand for the material from the quarry, owner Basalto La Spicca SpA decided to invest in two new Hitachi ZX350LCN-6 medium excavators last summer. The new models arrived in July and replaced two -3 machines, a ZX240LCN-3 and ZX350LC-3.

Quarry Manager Luca Dominici explains: “We opted for the same two models because we needed to renew the fleet and reach extra excavating capacity. I advised the owners [of the quarry] that the two ZX350LCN-6s would yield better results than two different models. Together they will be able to do more jobs and be more versatile overall.”

The use of the excavators depends on the types of material involved, which vary due to the formation of the basalt. Five million years ago, lava settled here after a volcanic explosion, and the deeper materials cooled faster and became smaller rocks and stones. The materials higher up took longer to cool and became larger and more porous rocks.

“There are three methods of extraction employed with the new machines,” says Luca. “Firstly, we excavate the smaller blasted materials from the quarry floor. We make four explosions per week. Secondly, we lift the heavier, larger rocks from the next level up. Lastly, we strip the softer materials from the face of the quarry wall.”

In addition to two other Hitachi excavators, a ZX520LCH-3 and a contractor's ZX470LCH-3, and two ZW250-5 wheel loaders, the new Zaxis-6 machines are making a positive impact in the quarry. They are equipped with double grouser shoes to enhance their stability on the quarry floor and 1.8m³ rock buckets. One has a quick coupler because it uses a hammer attachment.

“We use the ZX350LCN-6s because of their impressive performance, which is on a par with larger capacity machines from previous generations,” says Luca. “For example, the ZX350LCN-6 can now do what the ZX470LCH-3 used to do. It also does the same jobs at a lower cost – the savings more than pay for the HELP contracts!”

## Peace of mind

Both new machines were supplied with five-year/10,000-hour HELP extended warranty and service contracts from the official Hitachi dealer in Italy, SCAI. In combination with Hitachi's remote monitoring





system, ConSite, this provides Basalto La Spicca SpA with peace of mind that its machines will perform optimally and productivity levels will remain high.

The company first took out HELP for the ZX520LCH-3 and two ZW-5 wheel loaders. When SCAI receives a report via ConSite, the local branch contacts the quarry to arrange a suitable date and time to visit the machine. “In combination with HELP, this is the future way of doing things,” says Luca.

“Our goal is for our machines to be well maintained and for them to perform optimally. With the ZX520LCH-3, we felt comfortable that we were achieving this. Now we’re confident about the future because the combination of ConSite and HELP ensures that the machines are always in perfect working order and reach an optimum level of performance. For us, it’s not all about costs – it’s more important that our productivity is high.

“SCAI’s technicians carry out thorough inspections as well as their service activities. We trust them and have faith in their professionalism. This also bodes well for the future and the higher resale values that we can receive for our machines. And from a financial point of view, we always know what to expect from having fixed maintenance costs.”

## New generation

During *Ground Control*’s visit, one ZX350LCN-6 was working at a higher level with larger and heavier rock than the other. “The machine working at a higher level, without the quick coupler, will be more of a workhorse at first,” says Luca. “However, we will switch them around after a certain period of time to ensure they have similar life cycles.”

Luca and the operators have noticed several differences between the latest and previous generation of Hitachi Zaxis excavators. In terms of fuel consumption, the Zaxis-6 models use around 30% less fuel per hour than the Zaxis-3.

Marco Maccaglia has been at the company 14 years and an operator for five. He has operated the ZX350LC-3, ZX520LCH-3 and the new ZX350LCN-6. “The -3 was a very good machine, but



**“The new machine is more stable, faster and more fluid in its movements”**

Marco Maccaglia,  
Operator,  
Basalto La Spicca SpA

the -6 is quicker – for example, when it travels from one part of the quarry floor to another over short distances,” he says. “It has more power, and is more stable and precise. There is also a high level of comfort and less noise in the cab, which allows me to enjoy my work even more.”

Constantin Rotaru, who has been an operator for 14 years and with the company for eight, agrees with his colleague. He has also operated the ZX350LC-3, ZX500, ZX520LCH-3 and the new ZX350LCN-6, and says: “The new machine is more stable, faster

and more fluid in its movements. When pulling rock down from the face of the quarry wall, the undercarriage doesn’t move at all. There is a big difference in the speed of movement, even in ECO mode. The seat and overall cab comfort are excellent too.”

## Loyal to Hitachi

Basalto La Spicca SpA has always owned Hitachi machines and the arrival of the two latest models is set to strengthen its 30-year working relationship with SCAI even further. “We are loyal to the







Hitachi brand because of our relationship with SCAI and our main point of contact, Luigi Marsiliani, and also due to their close proximity – the SCAI office is only one hour's drive away,” says Luca.

In addition to that, he highlights the high quality of the hydraulic systems and overall reliability of Hitachi equipment. “Our machines don’t break down. We had no problems with the ZX350LC-3 after 12,000 working hours, and so the new models (with HELP) promise to be even better.”





# On the road to success

Since its launch at Bauma 2016, the new Hitachi ZW370-6 wheel loader has been proving popular with owners and operators alike. Built using market-leading technology in Japan, it has been specifically engineered with high-quality, durable components to enhance its overall performance. *Ground Control* headed to Finland where one unit was being put to the test on a busy quarry in the south of the country.

As with other capital cities around Europe, Helsinki relies on a steady stream of contractors and suppliers to support its infrastructure and redevelopment initiatives. Situated on the shore of the Gulf of Finland, the city has long been an attractive proposition to both tourists and residents, and regularly tops polls of the most 'liveable' places in the world. However, to maintain its global reputation, Helsinki depends on the vibrancy of its construction activities.

From its headquarters in the village of Hauho, contractor Nieminen Sora Oy (Nieminen) has long been a noted supplier of aggregates. Founded in 1974, the family-owned company switched emphasis in 2002 to focus on supporting the capital's

construction industry. It now produces around 40 types of gravel and stone, and delivers approximately one million tonnes of materials per year.

Nieminen is currently operating eight quarries in southern Finland. One of its key locations is nestled in the municipality of Hausjärvi – part of the Tavastia Proper region. The eight-hectare site mainly supplies sand to three concrete factories nearby, and also yields screened and crushed gravel, chippings and stone ash. In addition, Nieminen supplies five different types of stone, including red granite, which is a popular material for constructing traffic islands – especially in Helsinki. In total, the quarry produces around 800,000 tonnes of materials per year.





## First impressions

Since February 2016, Nieminen has relied on a ZW370-5 wheel loader at the Hausjärvi quarry, where it has worked for over 2,000 hours. Initially the company rented the machine from Hitachi's authorised dealer, Rotator, for three months and were so happy with its performance that they bought it outright.

Nieminen's chief operator Henri Petman, who has spent 15 years with the company, was heavily involved in the decision-making process. His feedback was an important factor in the company's selection of the ZW370-5.

"Hitachi wheel loaders are particularly suited to the work we do here, because of their excellent carrying capacity and grip,"

he says. "The traction control means there is no wheel spin in slippery conditions. They perform to a high standard, even when operating at -15°C."

Owing to the successful introduction of the ZW-5 wheel loader, Nieminen subsequently agreed to test the new ZW370-6. With several new maintenance features, strengthened components and overall improvements to the previous -5 model, Henri and his colleagues were eager to see how it would perform in the quarry's challenging conditions.

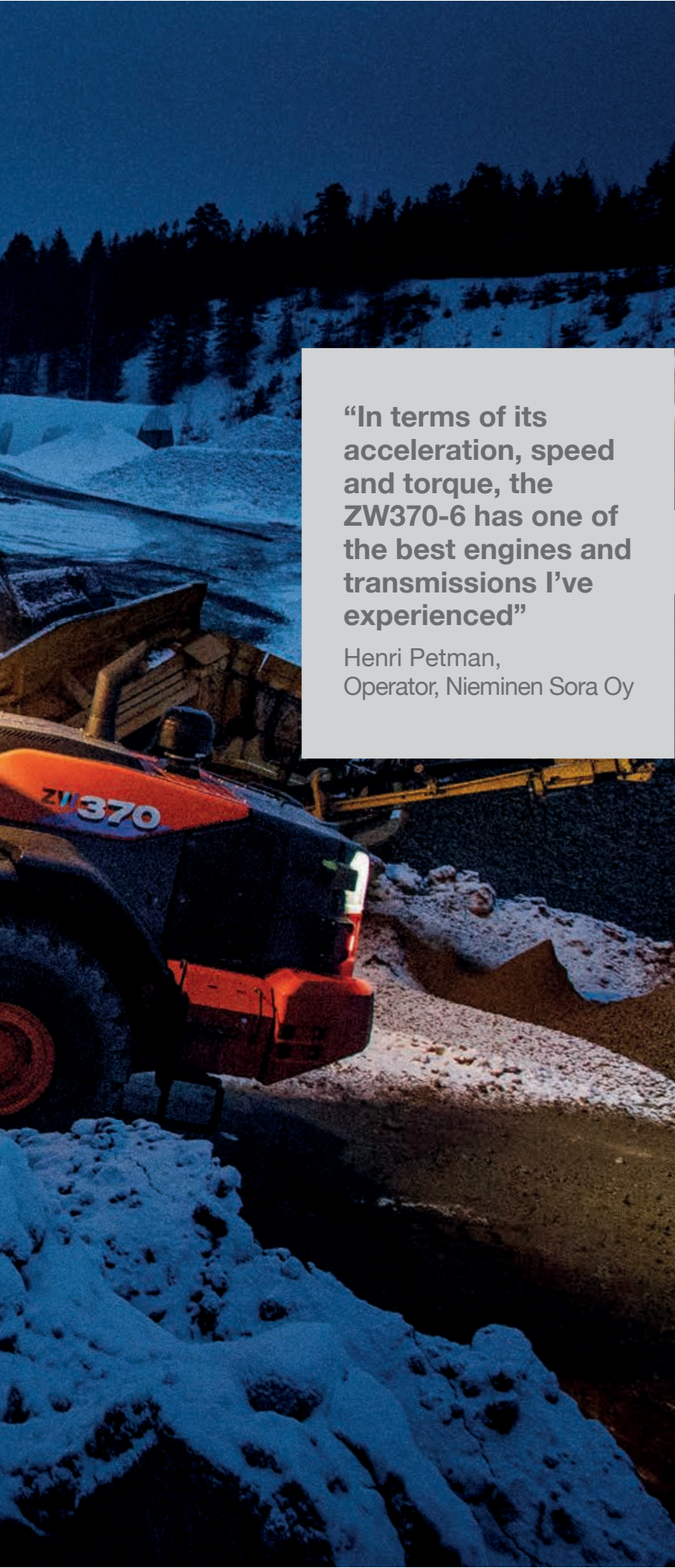




### The ZW370-6 at a glance

- **Natural habitat:** mainly spotted in quarries, but incredibly versatile
- **Max. engine power:** 290kW (389HP)
- **New features:** Stage IV (six-cylinder) engine, joystick steering system, easy maintenance access points, wide-view mirrors, redesigned rear grille, auto power-up when driving uphill, and heavy-duty suspension seat
- **Benefits:** improved traction force (up to 33% in standard mode), smoother gear change, low fuel consumption during travelling, reduced noise levels, increased loading performance, redesigned axles to reduce energy loss, and 360° panoramic view from the cab





**“In terms of its acceleration, speed and torque, the ZW370-6 has one of the best engines and transmissions I’ve experienced”**

Henri Petman,  
Operator, Nieminen Sora Oy

### View from the cab

Thanks to his extensive experience with wheel loaders including the ZW370-5, Henri found it easy to draw comparisons with the new arrival: “My initial impressions are that the new wheel loader performs better when travelling uphill, and is more powerful when driving into the pile. The engine offers more than enough force – especially when you hit the power button!”



The new, six-cylinder engine is EU Stage-IV compliant and does not require a diesel particulate filter. This reduces maintenance costs. It also helps to enhance fuel efficiency while travelling, in combination with the new redesigned axles. Not only has the engine been improved, but the traction force has been significantly increased on the ZW370-6 during digging.

“In terms of its acceleration, speed and torque, the ZW370-6 has one of the best engines and transmissions I’ve experienced,” adds Henri. “It’s also reassuring that the stability of the machine is consistent in tough conditions and that the brakes are responsive. If you consider its lifting height, the wheel loader is the perfect size for loading trucks on site.”

### Improved visibility

Visibility of the quarry is also superior from the cab of the ZW370-6. This is thanks to the 360° panoramic view, the rear-view camera and new wider side mirrors. In addition, the exhaust pipe and air intake have been repositioned to the back of the machine to improve visibility. These make a significant contribution to safety on site and demonstrate why the new model is one of the safest in its class.

A number of maintenance features have been developed on the ZW-6 model, which is advantageous in the challenging conditions associated with Finland. The engine cover catch is now lower, which facilitates ground access, while the rear grille can open sideways. This allows easier access to the radiators. In addition, access to the AdBlue® tank, has also been improved.

Overall, Henri has been impressed by both the reliability and performance of the machine. “It has been a great experience to test the ZW370-6,” he says. “The training from Rotator has also been very useful, and I would certainly recommend the new wheel loader to anyone working in a similar industry.”





# King of the quarry

The construction industry in the Czech Republic has enjoyed a resurgence in recent years. Buoyed by government initiatives, major investments in the country's transport infrastructure and house building market continue. *Ground Control* visited a quarry to the north of Prague to see how a ZX490LCH-6 large excavator is helping to provide the materials necessary to fuel this renewed demand.

**E**ncircling the city of Prague, the Central Bohemian region benefits from its close proximity to the Czech capital. Two worlds live harmoniously side-by-side in the region, with the industrial and agricultural sectors both prominent. The area boasts a proud heritage in car manufacturing, set against the background of stunning natural landscapes under national protection.

Nestling in the heart of this region lies the town of Veltrus, which perfectly embodies the synergy of old and new. Overlooked by its striking 18th-Century castle, it is also home to one of the Czech Republic's largest public parks. In the nearby community of Zlosyn, the presence of one quarry in particular is proof that the area has every intention of contributing to the country's continued prosperity.

## The perfect addition

The quarry in Zlosyn is operated by Ceske sterkopisky spol. s r.o., the Czech Republic's foremost purchaser of Hitachi construction

machinery. The company is one of the country's leading suppliers of aggregates, and has been extracting sand and gravel from the site since 2010.

Established in 2006, Ceske sterkopisky provides a complete range of quarrying solutions, covering the extraction, refinement and distribution of materials. The majority of its customers are involved in constructing residential and municipal buildings, civil engineering projects, and developing the country's transport infrastructure.

The company prides itself on its commitment to soil remediation on every project, and working in a socially and environmentally responsible way. The quarry provides a year-round supply of materials and is one of 16 locations used by Ceske sterkopisky across the Czech Republic. Another two sites are expected to open in 2018.

The ZX490LCH-6 was delivered in January 2017, followed by another identical model in April. The latest Zaxis-6 excavator





**“I particularly like the excavator because of the high level of comfort inside the cab”**

Miloslav Sisl, Operator,  
Ceské sterkopisky  
spol. s r.o.



complements the company's existing fleet of Hitachi construction machinery, which includes three units of the preceding ZX470LCH-5 model, and another two ZX350LC-3 medium excavators.

The ZX490LCH-6 is mainly used for general earthmoving activities on site, but also helps to support the extraction of around one million tonnes of materials per year. At the time of *Ground Control*'s visit in spring, the large excavator had worked for 300 hours and was being utilised to level an unused section of the quarry. This was to extend the current area available to Ceske sterkopisky for screening and crushing operations.

### A reputation for reliability

The ZX490LCH-6's robust reputation was a key factor as Ceske sterkopisky's Branch Manager, Karel Blaha, explains, “We selected the Hitachi excavator due to its reliability and cost-effectiveness. It's ideal for the type of work we do here owing to its powerful

performance. For me, the excellent fuel efficiency is probably the number one benefit to our business.”

Ceske sterkopisky receives first-class support from Hitachi's authorised dealer in the Czech Republic, NET spol. s r.o., and its sub-dealer, Austro Baumaschinen, s.r.o. The company's main contact at Austro Baumaschinen is Commercial Director Daniel Stoklas. He feels that the cooperation between the two organisations is a true success story.

“I've been working closely with Ceske sterkopisky for a long time, but have known them on a personal level for around seven years,” he says. “I certainly think of them as a VIP customer. We delivered the first machine to them – the ZX470LCH-5 – in 2012, and we continue to enjoy a friendly, productive relationship.”

Following the delivery of the ZX490LCH-6, Austro Baumaschinen conducted a training programme for the machine's operators. This ensured that they could routinely maintain the excavator effectively and, in doing so, maximise its performance. Ceske sterkopisky also benefits from technical support, extended warranty and Global e-Service on every Hitachi machine in its fleet.

### Luxury meets efficiency

The machine's introduction has been met enthusiastically by its operator, Miloslav Sisl, who has long experience with Hitachi excavators. “I have been impressed by the power and reliability of the ZX490LCH-6. It's ideally suited to these conditions and we are able to fully use its capabilities. I find the higher undercarriage

extremely useful, especially given the terrain and type of work we're doing on site.

“I particularly like the excavator because of the high level of comfort inside the cab. It's a pleasant environment in which to work. The ZX490LCH-6 is a luxurious machine and every feature works efficiently. The overall operating experience is fantastic, and I'm delighted that I get to drive it as part of my job.”



To see a movie of the Hitachi ZX490LCH-6 large excavator in the Czech Republic, please visit [www.youtube.com/user/HitachiConstruction](https://www.youtube.com/user/HitachiConstruction). To receive a digital version of *Ground Control* with new movies, please register online at [www.hitachicm.eu/iground-control](http://www.hitachicm.eu/iground-control)





# Where versatility counts

Allan Madsen of AM Enterprise ApS has been loyal to Hitachi construction machinery and the authorised dealer in Denmark, HP Entreprenørmaskiner A/S, for more than 12 years. Here he shares his views on the -6 range, the fourth generation of Zaxis excavators that he has worked with.



**“If you drove it every day, you would be very proud to have such an impressive workplace”**

Allan Madsen, Owner,  
AM Entrepriise ApS



### Versatile equipment

The project was due to be completed on schedule in May 2017 after two months' work and this is typical of the contracts entrusted to AM Entrepriise ApS. “We work directly for ABC Lavpris on a regular basis as it seeks to expand by up to 100 new low-cost supermarkets per year,” explains Allan. “The bulk of the work here was carried out by a Hitachi ZX130-3 and ZX65USB-5 with a selection of different attachments.”

AM Entrepriise ApS makes good use of C Madsen's fleet of Hitachi construction machinery for its groundworks, drainage and concrete work. The other machines at its disposal include ZX10, ZX19U-5 (canopy) and ZX26U-5 (canopy) minis, and a ZX210LC medium excavator.

The two companies' business relationship with HP Entreprenørmaskiner A/S (HPE) was established in 2005, with the purchase of C Madsen's first mini excavator, a ZX25 (that was only sold in April 2017).

### An impressive workplace

Allan adds, “We have an excellent working relationship with HPE. It is a good service and business partner, as they listen to what we need and want. They are also able to help us out if there's an issue of any kind.”

The ZX135US-6 replaced the ZX130-3 and it has been supplied with a tilt rotator, LED lights, a grapple attachment, a 600mm clay bucket and a 1,600mm curved bucket. It is also covered by a 3,000-hour/five-year HELP (Hitachi Extended Life Program) warranty.

“This already feels like a good machine, with a smooth operation,” continues Allan. “It works well and I have an excellent view from the cab. If you drove it every day, you would be very proud to have such an impressive workplace.”

“I have tried many different types of machines over the past 32 years. However, when I first tested a Hitachi excavator, I found it to be easy to use, and the hydraulic system was very smooth and precise – perfect for digging and levelling work. In addition, I have continued to find a low cost of ownership with Hitachi machines – and the ZX135US-6 has only reinforced this opinion.”

**O**n the site of an old factory in the town of Haderslev, southern Denmark, a new Hitachi ZX135US-6 is preparing an area for the construction of a new supermarket. The machine has been supplied to AM Entrepriise by C Madsen, which is Allan's wife Charlotte's rental company located in Bramming on the west coast of the Jutland peninsula.

The versatility of the latest Zaxis-6 short-tail swing medium excavator is beneficial to the contractor, which has been instructed to remove the plantation and rubbish amassed over the past 20 years.

“Danish-specification machines have to be versatile and operators highly skilled, so that we can carry out a wide range of jobs in the minimum amount of time,” says Allan. “This is due to the significant level of taxation and relatively high salaries in Denmark.”



To see a movie of the Hitachi ZX135US-6 medium excavator in Denmark, please visit [www.youtube.com/user/HitachiConstruction](http://www.youtube.com/user/HitachiConstruction). To receive a digital version of *Ground Control* with new movies, please register online at [www.hitachicm.eu/iground-control](http://www.hitachicm.eu/iground-control)



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