

Reliable solutions

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GROUND CONTROL

Issue 30 Summer 2021 www.hitachicm.eu

30

FINAL PRINT EDITION

Celebrating 30 issues as
Ground Control goes digital



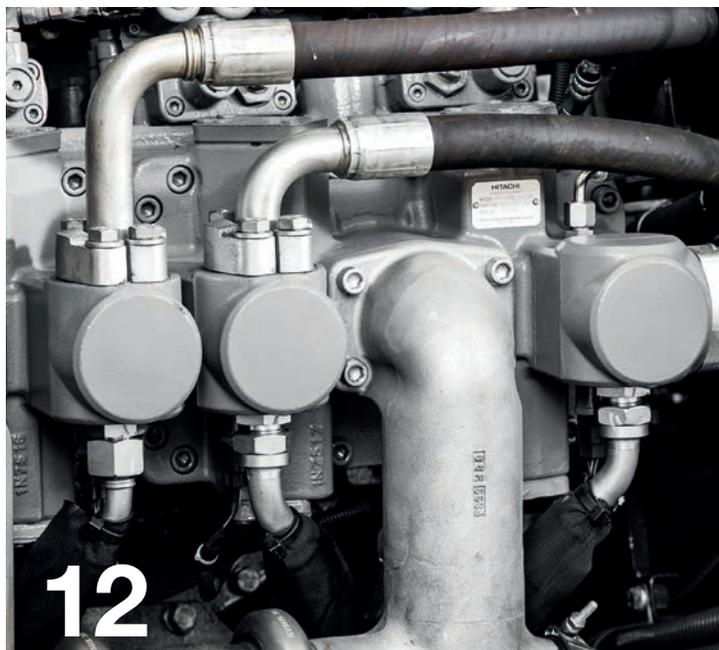
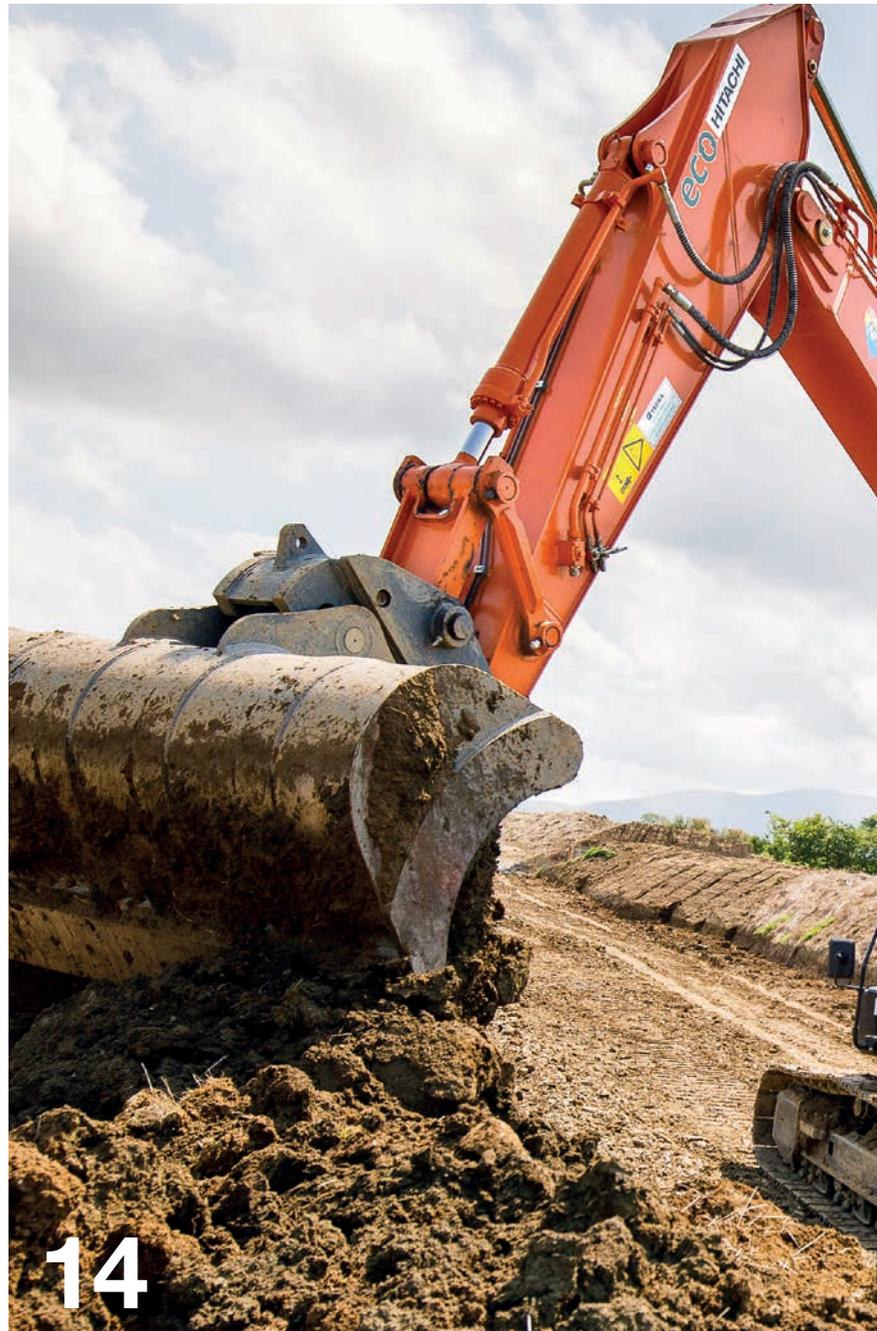
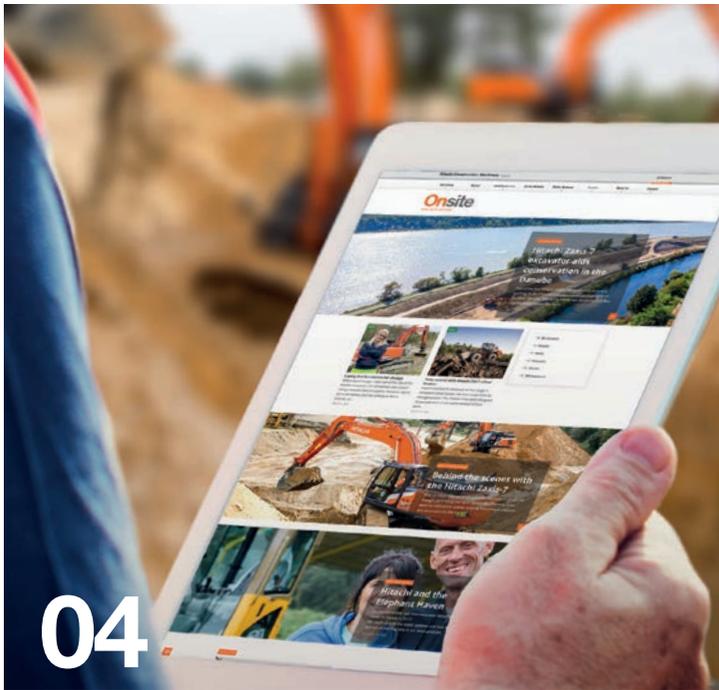
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SPECIAL ISSUE

After 30 issues, *Ground Control* will be published online.
Find out more on page 4.





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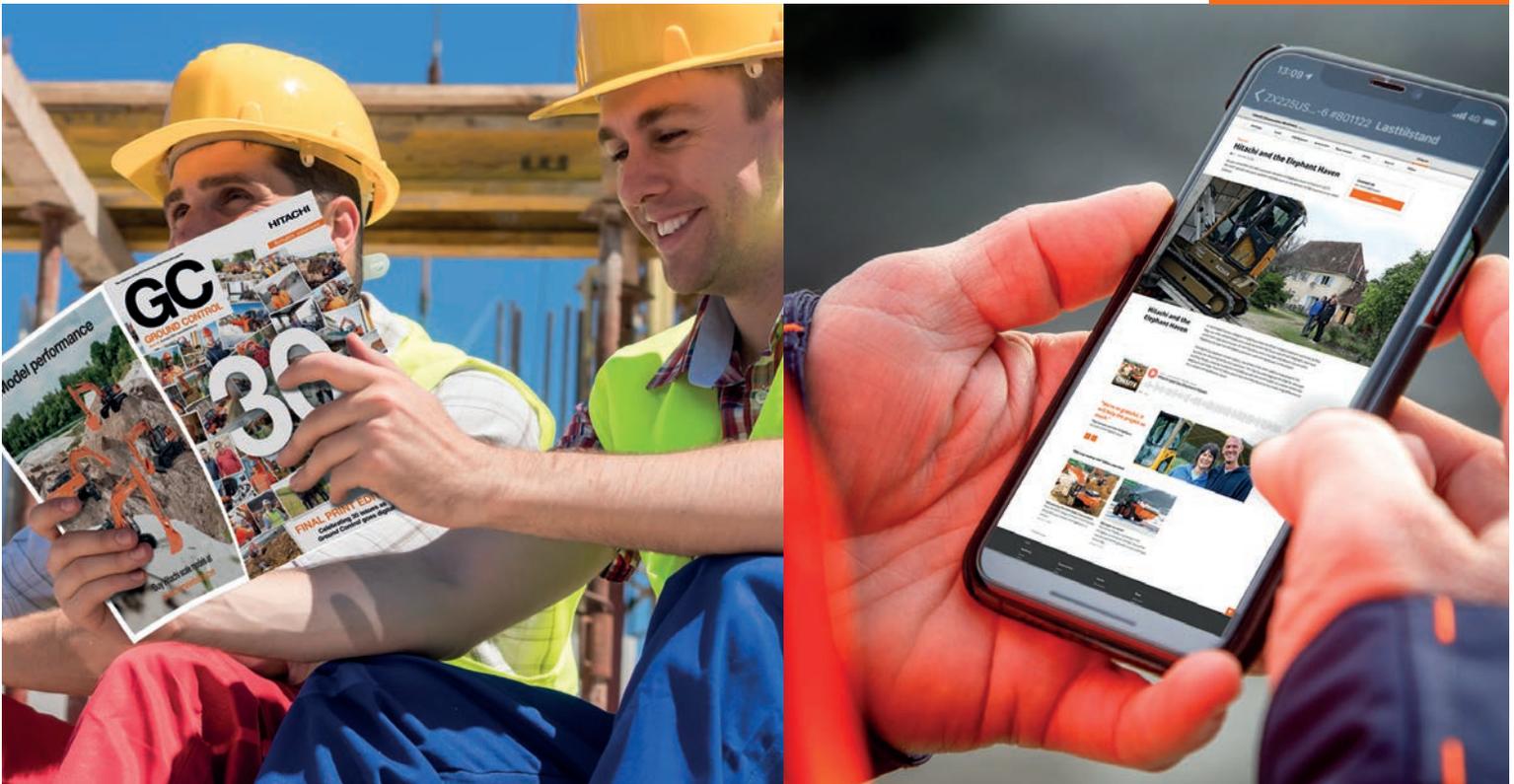
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Ground Control goes digital with *Onsite*

Ground Control first went to print in 2005, and over the years, it has become a firm favourite with Hitachi customers all over Europe and beyond. Now the magazine is evolving to provide more engaging content than ever before on a new digital platform, *Onsite*.



This is the 30th and last issue of *Ground Control* (left) and you will now be able to access all Hitachi construction machinery content via the new digital version, *Onsite* (right)

To keep pace with the demands of modern audiences and the impact of digital media, *Ground Control* – the official customer magazine of Hitachi Construction Machinery (Europe) NV (HCME) – is moving from print towards a fully online presence. The magazine's content will be available on digital platform *Onsite*, and online magazine *iGround Control* will be extended to four issues per year.

For 16 years and across 30 issues, the biannual print magazine has kept Hitachi owners, operators, dealers, technicians and fans up-to-date with a range of interesting customer stories, machinery updates and launches, event information, and news from our authorised dealerships. Since 2010, the digital version, *iGround Control*, has provided customers with engaging videos as well as photography, and shorter articles and news stories.

From remote mines to urban construction projects, *Ground Control* has highlighted unique job sites through case studies and access-all-areas photography. For almost two decades, HCME has been privileged to see how Hitachi construction machinery has made a positive impact across Europe, Africa, Asia, America, Australia and the Middle East.

With this in mind, we'd like to take the opportunity to say "thank you" to everyone who has helped to make *Ground Control* a success. From happy customers all over the world, to the hardworking dealers and other Hitachi personnel who have supported us from day one.

Since its launch, *Ground Control* has:

- visited 41 countries for editorial, photographic and video coverage
- published reports from 65 countries around the world
- photographed and filmed more than 300 customer job sites.

Looking ahead

Now customers can access *Onsite*, a new online hub, which features even more informative content. We'll still be visiting the best job sites to see the latest machines in action, and alongside **news stories** and **spectacular photography**, *Onsite* will also feature links to:

- **exciting movies** – watch the latest excavators, wheel loaders

and rigid dump trucks, special applications, industry solutions, and the views of Hitachi owners and operators everywhere

- **fascinating podcasts** – listen to industry experts from Hitachi, the authorised dealer network, industry organisations, media personalities and our customers talk about a wide range of topics, from innovative technologies to the world of quarrying and mining
- **in-depth white papers** – learn about the latest issues and trends facing the construction industry, and our fascinating insights into such topics as the future of the rental market, remote monitoring and fleet management, as well as electric machines.

"We are proud of the journey we've been on with *Ground Control* since 2005," says Ghislaine Jonker, PR & Communication Manager for HCME. "It has allowed us to meet so many amazing people in the construction industry, and share the stories of owners and operators – as well as Hitachi people – with an incredible passion for our machines.

"From now on, we will share all of our existing and future content on our new online hub. I'm delighted that we're offering up-to-date stories each week via *Onsite*. It is packed with more of the content we know Hitachi owners are looking for and accessible on any device, 24/7. In this way, *Onsite* will bring us closer to the job site than ever before."

How to subscribe

To access *Onsite* and subscribe to the *Onsite* newsletter, please visit: www.hitachicm.eu/onsite/. You can also sign up to receive *iGround Control*: www.hitachicm.eu/iground-control/.

On behalf of the HCME Marketing and Communication team, we hope that you enjoy this new format and look forward to updating you soon.

New EX-7 excavator offers 19% fuel savings

Hitachi Construction Machinery Co., Ltd. (HCM) has announced the launch of the EX2000-7 ultra-large excavator in October 2021. The new model consumes up to 19% less fuel while maintaining the same levels of productivity as the EX1900-6. This is achieved by energy-efficient features including a new hydraulic circuit and work mode selection function.

Its exceptional fuel efficiency also contributes to a reduced life-cycle cost and less environmental impact. Compared to the EX1900-6, the new model can save much as 460 tonnes of CO₂ emissions per year, per machine. With an operating weight of 193 tonnes, the EX2000-7 is one of the smaller models in the EX-7 ultra-large excavator range. It is expected to appeal to small- to medium-sized mining operations and larger quarrying sites, where fuel efficiency is essential.

The new hydraulic system – employed for the first time on Hitachi's ultra-large excavators – will allow more precise management of the hydraulic oil flow in each control valve throughout the digging and loading cycle. The new work mode selection allows the operator to select one of three options (High Power, Power or Economy) to further optimise productivity and fuel efficiency for different types of operation.

In addition, the EX2000-7 will be equipped for the integration of a remote operation system, operation support system and autonomous operation function. All of these are scheduled to begin testing during 2021. They are in line with HCM's aim to realise autonomous operations by co-ordinating hydraulic excavators and autonomous haulage systems to enhance safety and boost productivity to new levels.



The EX2000-7 will be launched in October 2021

Landmark investment

Romanian company CIS GAZ Srl has purchased a fleet of 13 Hitachi Premium Used medium excavators to work on a project of national significance. The ZX250LC-6s were delivered by authorised Hitachi dealer Utirom Invest Srl and are working on the Romania to Republic of Moldova gas pipeline.

Having each accumulated 2-4,000 hours, the ZX250LC-6s underwent a rigorous inspection process by Utirom prior to delivery to ensure they met the high-quality standards of Hitachi Premium Used. The service was carried out using only Hitachi Genuine parts and lubricants, according to Hitachi specifications, with the maintenance records made available via Global e-Service.

CIS GAZ was highly satisfied with the purchase, as a senior spokesperson for the company noted: "We were looking for used equipment to help us complete a challenging section of the gas pipeline project, and spoke to Utirom about our options. They made a full assessment of our needs and proposed the Hitachi ZX250LC-6s.



"Hitachi is a well-known brand in Romania – and compared to new excavators – the ZX250LC-6s were just as good. Therefore, we had no hesitation in selecting these impressive machines. We needed the best equipment we could find in order to work efficiently and Hitachi Premium Used was undoubtedly the most ideal option for us."

Key changes to dealer network

A number of important changes have taken place within HCME's European dealer network. These will help to support Hitachi's goal of delivering the best possible customer service.

In Sweden, Delvator AB was acquired by Sørenco AS – the parent company of Norwegian dealer, Nasta AS. Delvator is a significant player in the Swedish market, and CEO of Nasta AS, Tom Johansen, says: "We will strive to maintain the good work done in Sweden. I am confident that Delvator will continue to outperform high customer expectations."

In Italy, HCME has expanded its distribution network with the addition of six new dealers: KMI SRL in Calabria and Puglia; WR57 SRL in Emilia Romagna; Franco Clò Srl, Salomoni Srl and Comac Srl in the north east; and Massucco T Srl in the north west. The new dealers join SCAI, HCME's long-term partner in Italy, which continues to provide the highest levels of service to customers in the rest of the

country including Lombardia, and central and southern regions.

In Greece, HELMA SA was appointed to offer the entire Hitachi line-up from its headquarters in Athens, supported by a service branch in Magoula. "There is a strong relationship with suppliers in our market and a demand for hi-tech machinery," says General Manager Yannis Tselikas. "Rental is also gaining traction and the immediate future looks promising."

HCME has also appointed Alwark SIA and Alwark UAB as its new dealers in Latvia and Lithuania respectively. The outlook for the region is positive and Lithuania's construction market is anticipated to grow. "The most important thing is being a reliable partner to our customers," explains Marketing Manager (Alwark SIA) Evita Tuca. "This means people, flexible cooperation and developing our successful relationships."



1. From left: Tom Johansen (Nasta CEO); Christer Arvidson and Lotta Lundquist (former owners of Delvator); and Fredrik Røed and Finn Erik Røed of Sørenco AS
2. Helma's headquarters in Athens **3.** From left: Anna Terweijden, HCME Account Manager; Patrick Top, HCME Director; Makoto Yamazawa, former HCME President; Julius Urbanavicius, Head of Sales (Alwark UAB); Paulius Čupkovas, Project Manager (Alwark UAB); Janis Esta, Member of the Board (Alwark SIA); and Vladislavs Vapalis, Project Manager (Alwark SIA)

Perfect combination

Hitachi buckets and quick couplers, specifically designed for the ZW wheel loader range, are rising in popularity in the Norwegian market. This development has been helped by the expertise of local authorised dealer, Nasta, and its partnership with Hitachi Construction Machinery (Europe) NV (HCME).

Nasta and HCME offer a wide variety of buckets, with standard versions in stock for smaller ZW150-6, ZW180-6, ZW220-6 and ZW250-6 models, and tailor-made products for larger machines with short lead times of 20-25 days.

Herstua Grus AS purchased a Hitachi bucket with its latest wheel loader in October 2019. The ZW370-6 is based in a quarrying and waste handling site, north of Gardermoen Airport near Oslo. The company selected a Hitachi bucket for this machine based on advice from Nasta and the experience of another quarrying customer with the same model and bucket.

"Herstua chose a bucket with a bolt-on cutting edge, which they can change easily after wear," says Nasta Product Manager Ole Kristian Skauan. "They're extremely satisfied with the bucket's



Herstua Grus AS owner Tore Wethal

quality." Herstua Grus AS owner Tore Wethal adds: "We have a strong group of orange machines and have been pleased with the after-sales support from the team at Nasta. So, we'll continue to buy orange."

Committed to customer needs

The ZX140W-6 wheeled excavator is the most popular Hitachi model among customers of Dutch sub-dealer De Vor Brandes & Co BV. To further enhance sales – by comparing it fairly with other brands – the company decided to invest in its own demonstration model. It could then configure the machine with popular options and adapt it to meet local environmental regulations.

De Vor Brandes fitted the machine with a tilt rotator, extra LED lights, wide single tyres and mudguards. The work was carried out at its workshop in Renswoude and took approximately 40 working days. The dealer then offered the ZX140W-6 to several customers on a trial period and had successfully sold the machine within six months.

Sales Manager Rene Doornenbal says: “We decided to pre-finance the purchase with help from Hitachi Capital. This gave us time to prepare the machine and then create sufficient interest to generate a sale, before payment was due. It has been a successful initiative for us. The customer who bought this machine also used a lease agreement provided by Hitachi Capital.”



Excellent cooperation ensured the successful assembly of two EX-6 excavators in Ghana

Continued support in challenging times

Throughout the global pandemic and despite the travel restrictions it has imposed, Hitachi Construction Machinery Europe NV (HCME) has continued to provide a high level of support to its customers and dealer network. The HCME Product Support team, for example, had to find an alternative way of assisting the local dealer, DEM Ghana, to assemble two EX1900-6 backhoe excavators at Damang Gold Mine in southwest Ghana.

Unable to travel to the mine, the team had to perform this task remotely, relying on telephone conversations, video calls and a helmet-mounted camera worn by the support engineer on site. This enabled direct communication and a real-time view of what the engineer was seeing via the camera.

Vital checks ensured that valves, cables and hoses were properly mounted and configured to prevent damage that could occur during machine start-up. HCME Support Engineer Tom Verweij says: “This is the first time that we have had to work in this way. Thanks to the technology involved and the excellent cooperation between us and DEM Ghana, the machines were fully assembled within two to three weeks.”

DEM Group’s Mining Operations Sales Manager Cyril De La Guerre Ramsay adds: “We are proud to be a dealer of Hitachi, and part of their sales and support teams in West Africa. Together, we will keep on building exceptional relationships in the mining industry.”

The two EX1900-6s were put into operation in June 2020. Since then, another EX1900-6 has been assembled and started operating in February 2021. The Damang Gold Mine now has four EX1900-6 excavators working in the main pit, extracting overburden and ore.

Digging deep for the elephants

In 2017, a Hitachi Premium Used mini excavator was donated to Europe's first elephant sanctuary in southwest France. Since its arrival, the ZX38U-5 has proved invaluable to Elephant Haven founders Sofie Goetghebeur and Tony Verhulst, in preparing the 29-hectare site for its first inhabitants.

Supplied with various buckets and attachments, and supported by the local Hitachi dealer, the mini excavator has been used for digging trenches for drainage, creating mud pools, and building fences and a shelter where the elephants will sleep. Phase 1 of the project has now been completed and the sanctuary is now ready to welcome three female elephants.

The latest episode of the construction machinery podcast, *Onsite*, features interviews with Sofie and Tony, about how the ZX38U-5 has made a big difference to this unique and worthwhile project. To listen, visit www.buzzsprout.com/1025977/6855532 or go to Apple Podcasts, Spotify or wherever you find your podcasts. Alternatively, search for 'construction machinery podcast'.



Sofie Goetghebeur and Tony Verhulst with the Premium Used ZX38U-5



World ski event welcomes Hitachi help

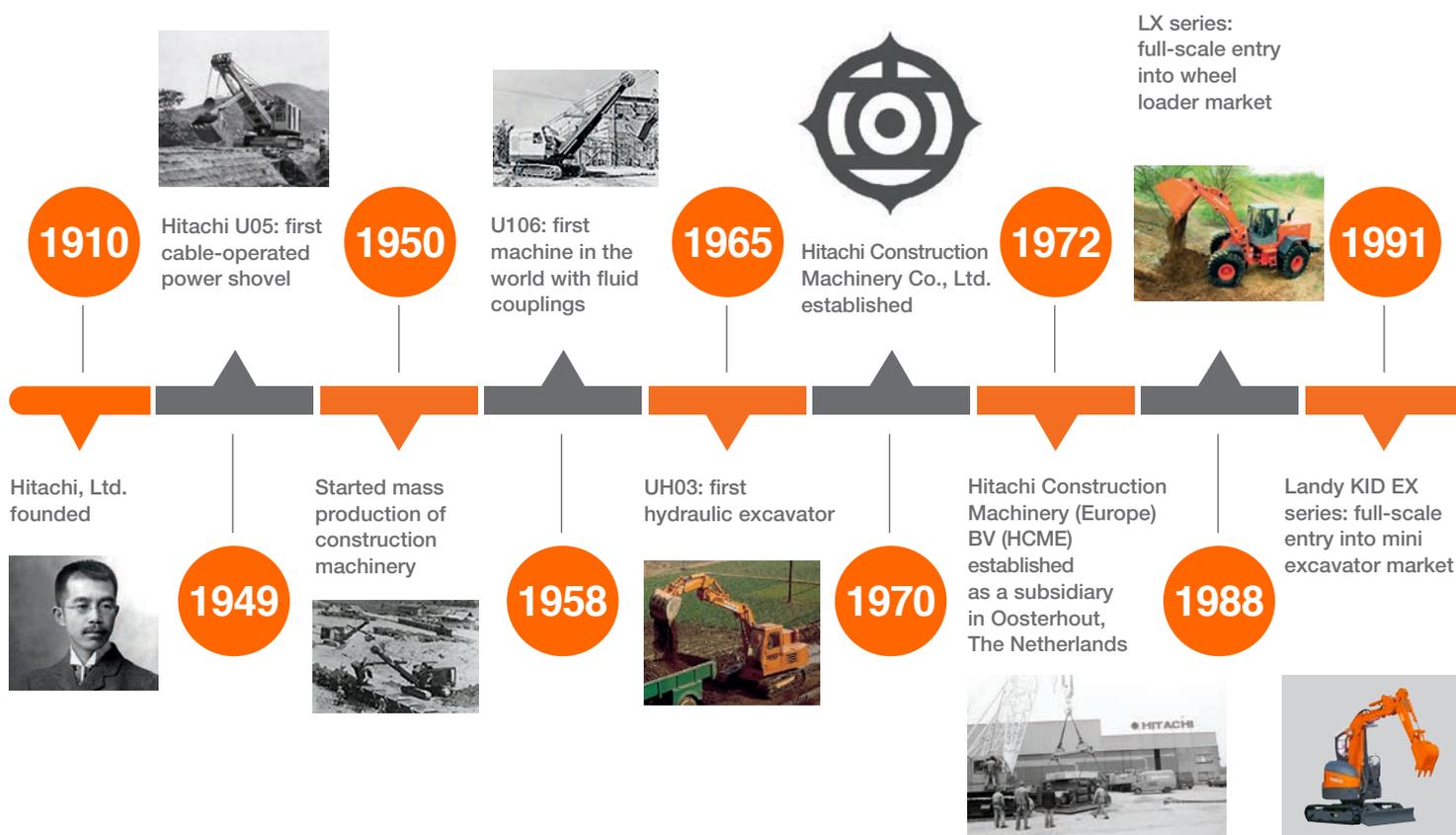
The Alpine World Ski Championships in Cortina d'Ampezzo, Italy, was broadcast to more than 500 million people worldwide in February. In the build-up to the event, a huge plan of construction and renovation works – including new slopes and facilities – involved a substantial fleet of Hitachi excavators and wheel loaders.

The machines were rented to local construction company Alfarè and event organisers Cortina 2021 Foundation by Hitachi dealer Franco Clò Srl. The ZW140-5, ZW150-6 and ZW180-6 wheel loaders, and ZX210-5 and ZX130-6 excavators, were used for clearing snow, preparing the slopes and race arrival area, as well as building stands and VIP areas.

The aim was to create the best conditions in line with international ski competition standards. Throughout the event, they remained on standby in the race arrival area and the centre of Cortina for any necessary work. The wheel loaders maintained the ski slopes both during and after the event.

"When you talk about wheel loaders, you can only really talk about Hitachi," said Riccardo Alfarè, who was in charge of the machines. Andrea Clò, owner of Franco Clò Srl, added: "We felt proud to provide Hitachi equipment to customers working on such a special event."

Seven decades of innovation



2020 was a special year for Hitachi Construction Machinery Co., Ltd. (HCM), as it marked seven decades since the start of full-scale excavator production. After the first mechanical excavator – the U05 – was developed by Hitachi, Ltd. in 1949 and used to help rebuild post-war Japan, the company's story has been one of innovation and growth.

Phenomenal growth

Hitachi fully entered the construction machinery market in 1950 with the mass production of the U06. Between 1953 and 1965, Japan's GDP expanded by more than 9% per year, with manufacturing and mining up by 13%, construction by 11% and infrastructure by 12%.

During a period of such phenomenal economic growth, Hitachi, Ltd. realised the undoubted potential of construction as one of its four divisions. As a result, HCM was established in 1970 as an independent company for the development, production, sales and service of construction equipment.

With an annual growth of 11-13%, the Japanese construction industry continued to expand rapidly in the Seventies, both in house building and in national land development projects. Highway construction led the public works sector followed by harbour works, land reclamation and rail construction, including the Shinkansen (bullet train) express railway.

As a result, the manufacture of construction machinery was regarded as one of the major industries in Japan in the early Eighties, with exports only accounting for about 30-40% of the total production volume. HCM had a relatively small-scale business at this time, with a turnover of less than one quarter of what it is today.

Almost 80% of this income came from the Japanese market, where around half of the world's excavators were being sold. This was further driven by a "bubble economy" in Japan from 1986 to 1991, when real estate and stock market prices were greatly inflated.

Global expansion

However, the situation quickly changed in 1992, when the price bubble burst and the Japanese economy stagnated over the next decade. That was a major turning point for HCM's business model, as the company had already been looking at expanding on a global basis.

The percentage of exports started to increase as domestic demands curtailed and HCM expanded its efforts to obtain foreign sales. Hitachi Construction Machinery (Europe) NV (HCME) had already been founded in The Netherlands in 1972 – covering Europe, Africa and the Middle East – with other subsidiaries established in Singapore (1984), Malaysia (1985), Thailand (1990) and Indonesia (1991).



Demand was growing quickly and HCM was intent on strengthening its position within these developing markets. This was supported by the introduction of a broader product range, such as a full-scale entry into mini excavators (1991) and the development of LX-2 wheel loaders (1993).

The phenomenal rise of the Chinese economy in the late Nineties was fuelled by its huge demand for natural resources. The country's domestic industrial coal consumption was accompanied by the growth of the global mining market from the turn of the century.

As the mines expanded, the need for new mining equipment and related technology increased. HCM developed strong partnerships with the global mining companies, with new subsidiaries established in Canada, China and South Africa in 1998, and in Australia a year later. This included the supply of software, as well as some of the biggest excavators (the EX5500 was the largest in the world in 1997) and rigid dump trucks available in the market.

Innovative solutions

Hitachi's mining knowledge meant that the company was able to adapt its innovative solutions for construction products, such as the award-winning Zaxis series in 2000 – the first hydraulic excavators to be equipped with satellite communication. Remote monitoring and fleet management also became increasingly important,

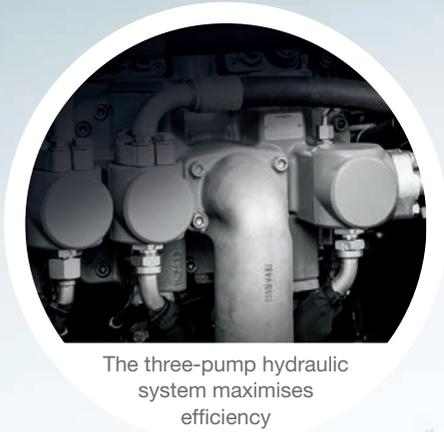
which in turn led to the acquisition of Wenco International Mining Systems Ltd. in 2009.

As construction companies became more concerned about the environment and the total cost of ownership, it was vital for HCM to evolve as a total solution provider to optimise customer operations and sustainability. In 2010, this led to such innovations as the ZX35B lithium-ion, battery-powered mini excavator and a machine guidance system compatible with ICT construction work, as well as the ZH200-A hybrid excavator a year later.

More recently, digitalisation has come to the fore with the emphasis on connectivity, as well as safety and efficiency. Therefore, HCM's focus has not just been on selling products, but also on finding solutions for the total value chain.

As an example, HCME has introduced: remote monitoring systems Owner's Site and ConSite (2015); Hitachi Premium Used (2016) and Hitachi Premium Rental (2017) initiatives; the European Application Centre for electric machinery with KTEG (2018); and Global e-Service for mini excavators with ABAX (2019).

Over the decades, HCM has evolved to become a market-leading construction and mining brand, globally renowned for value-added technology, products and services. These have had a huge impact on society by creating rich living spaces and adhering to the company's vision of passing on a productive environment and prosperous cities to future generations.



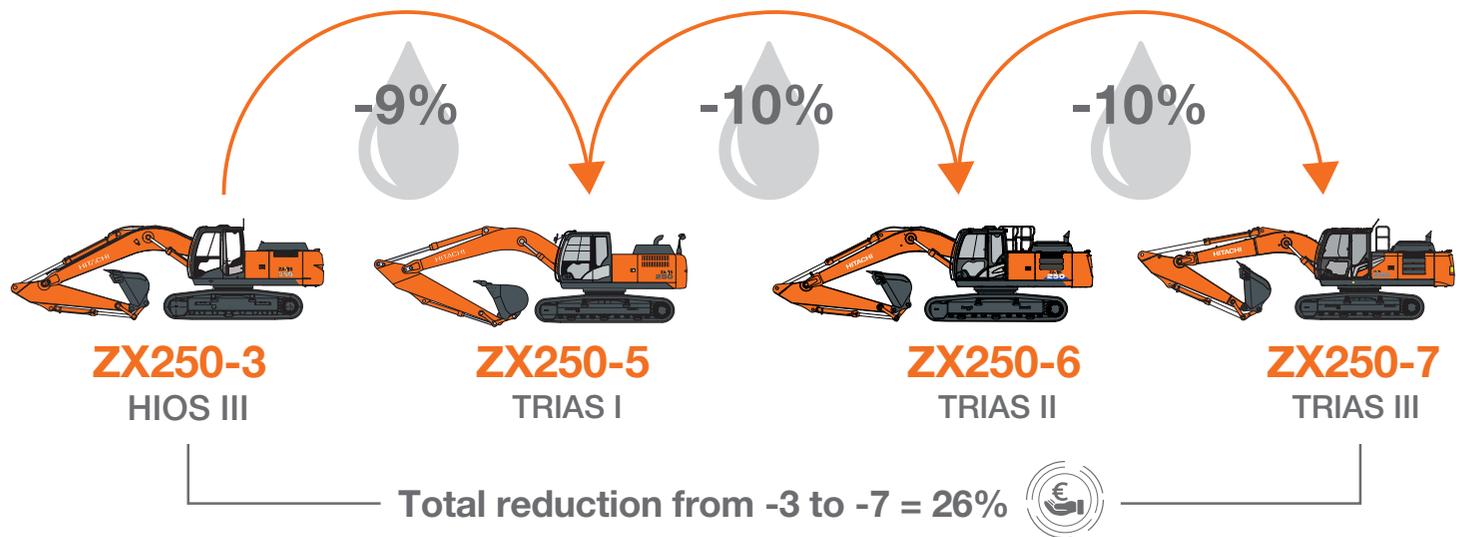
The three-pump hydraulic system maximises efficiency



TRIAS: reducing fuel consumption

The Hitachi hydraulic system has evolved from the Zaxis-3 to the current Zaxis-7 series to deliver an all-round profitable solution for medium excavator owners.

Historic TRIAS fuel consumption reduction



Comparison of PWR mode at same productivity

To help contractors be more profitable in their activities, and to reduce their environmental impact, equipment manufacturers are striving to produce machines capable of less fuel consumption. While some manufacturers have responded to the need for lower fuel consumption by reducing the engine output of their machines, Hitachi has taken a different approach with its unique TRIAS hydraulic system. The aim was to ensure that its equipment could do as much as possible with as little fuel as possible.

The name 'TRIAS' refers to the three-pump hydraulic system that replaced the previous two-pump system for this size of excavator. The third pump helps to maximise efficiency and productivity – without sacrificing fuel economy – by reducing the loss of hydraulic pressure.

The key to TRIAS is the combination of the three-pump system, control valve, multiple pressure sensors and computer-controlled solenoid valves. Tuning the system is vital for efficiency of the control valve – and this Hitachi technology is unique to the construction industry.

Innovative evolution

The original TRIAS system was developed for the Zaxis-5 medium excavator range in 2011. To explain how a TRIAS I (and conventional) control valve spool works, there is always a significant return of pressurised oil to the tank during the operation of a function, especially at small and medium control lever strokes. This flow of pressurised oil to the tank results in hydraulic power loss.

In 2015, Hitachi launched TRIAS II in its Zaxis-6 range of medium excavators. This system further fine-tuned the control valve spools and added additional pump flow limit solenoid valves. This further reduced hydraulic losses in the control valve.

In 2020, TRIAS III was unveiled with the arrival of the Zaxis-7 range. This system benefits from further fine-tuning of the control valve spools and new features resulting in even less hydraulic losses, greater efficiency and controllability.

One such feature is the pump 3 minimum angle fix control. If the

pump pressure becomes high during digging, pump 3 is fixed to a no-load/minimum flow rate and pumps 1 and 2 are used at high pressure and maximum flow rate. This improves pump efficiency by 2%, reducing fuel consumption.

Further enhancing profitability

The evolution of the TRIAS system has achieved impressive fuel consumption reductions. The initial TRIAS I and subsequent II and III versions have delivered a total reduction of 26% in the 25-tonne excavator class (see diagram). This has resulted in significant TCO savings and vital emission reductions to comply with stringent environmental regulations.

In addition, the TRIAS system ensures an efficient swing operation and an exceptionally fast front attachment speed. This, coupled with high levels of control and precision, assisted by the operator's ability to fine-tune the machine by adjusting settings on the monitor menu, contributes to excellent productivity and further enhances profitability.

To ensure consistently high levels of performance, Hitachi has worked closely with its Nordic dealers over several years to further enhance the TRIAS system so that it meets the needs of customers.

Hitachi's approach with TRIAS, namely to preserve the power of the machine and ensure that as much as possible can be done using as little fuel as possible, is more important now than ever with the optimum use of resources under the spotlight.

Efficiency and environmental concerns will only increase in the future, and while zero-emission electric equipment is still in the early stages of development, exceptionally fuel-efficient machines will bridge the gap.

To find out more about Hitachi's TRIAS system, please contact your local dealer, listen to the HCME TRIAS podcast and read our in-depth white paper on *Onsite* (www.hitachicm.eu/onsite/).



Leading the way with Zaxis-7

Owners and operators in Europe share their first impressions of the new Zaxis-7 medium crawler excavators, highlighting the comfort of the cab, innovative technology and the strength of the Hitachi brand.



“Designed around the operator”

Cab comfort is key

The first Hitachi Zaxis-7 excavators in England were delivered to DMJ Drainage (DMJ), one of the UK's leading land drainage contractors. In June 2020, the two ZX300LC-7 medium excavators worked on a stretch of the West Cumbria water supplies project in the northern part of the Lake District National Park.

Operator Roger Knipe has more than 30 years' experience and was impressed with the new ZX300LC-7: “This machine has been designed around the operator, because it's very comfortable and they've thought about the little things... For example, the increased sweeping area of the wiper is excellent, and the Bluetooth connection is handy so that I can continue to operate safely without stopping to answer the phone.

“The seat is comfortable, and I like the way that it moves as one

with the console. There's so much legroom, as well as less noise and no vibration. The layout of the control panel is easy to understand and use, and I can view the monitor clearly. My favourite aspect of the machine is the visibility, it's brilliant, and I especially like the view from the three cameras. I really enjoy operating this machine, and it's ideal for this earthmoving and levelling job.

“At the end of a long day, I feel less tired than I would in another machine. In my opinion, Hitachi excavators are the best, because they are so responsive due to the hydraulic system. If another operator asked me about this new Zaxis-7, I would say that it's better than your machine!”



Watch the movie



“It’s important to have a fast and precise machine”

Speed, precision and low emissions

The strong reputation of Hitachi excavators helped to persuade contractor Grondverzetbedrijf Oosterveld BV to invest in the first Hitachi Zaxis-7 medium excavators in The Netherlands. The ZX350LC-7 arrived in May 2020 and was followed in September by the ZX250LC-7. Both machines were supplied by Timmerman BV, an authorised sub-dealer of Hitachi Construction Machinery Nederland.

Based in Bornerbroek in the east of the country, Grondverzetbedrijf Oosterveld BV specialises in earthmoving and infrastructure, and sister company Oosterveld Sloopwerken BV focuses on demolition activities. They operate in their home country and Germany, as well as Denmark, France and the UK (upon request).

Company directors Frank and Tom Oosterveld, who took over from their father, Jan, earlier this year, decided to invest in the new Zaxis-7 models after attending an event in Amsterdam. “We saw the machines for ourselves and spoke to other Hitachi customers – their feedback was really valuable,” says Frank.

“We knew of the brand’s strong reputation, as we had a ZX460 large excavator many years ago,” adds Tom. “Initially we had wanted to try something new, so we tested several brands and asked our operators for their opinions. During that time, we had a ZX210LC-6 to try out. The operator was very happy with the machine’s ease-of-use and that’s why we selected Hitachi.”

They chose the ZX250LC-7 and ZX350LC-7 as much of their work requires machines compliant with the latest Stage V emission regulations. The ZX350-7 was used at a job site in Almelo to dig trenches and lay sewer pipes before the construction of a new factory for VDL Energy Systems.

“The biggest challenge is to lay the pipes, so they fit seamlessly, as fast as possible,” explains Frank. “So, it’s important to have a fast and precise machine. We needed the ZX350-7 to handle the heavy 1,200mm pipes.”



Watch the movie



“The best possible comfort and the latest technology”

Reliability, service and comfort

An important aquatic conservation project on the River Danube was the first assignment for one of the first Hitachi ZX300-7 excavators in Austria. Owned by GLS Bau und Montage GmbH, it was one of several construction machines used to create a 12km bypass channel that enables fish to pass the Altenwörth power station to spawn.

Work on the channel began in spring 2020 and was expected to continue until March 2022. The new ZX300-7 was used to dig a new riverbed, and create embankments and meanders for the river. GLS Bau und Montage renews its fleet of construction equipment every six to seven years (at 11-12,000 working hours). “This year, we modernised the 30-tonne class,” says Workshop Manager Johann Eder.

The decision to invest in the new Zaxis-7 machine was influenced by the reliable performance of its first Hitachi model, a ZX520, acquired ten years ago, and the quality of service from German

Hitachi dealer Kiesel. The high level of comfort offered by the redesigned Zaxis-7 cab was also a factor. “We waited for the launch of the new models in order to offer our 20 operators the best possible comfort and the latest technology,” says Johann.

Since its arrival, the company’s operators have appreciated the exceptional comfort from the ergonomically designed cab, with the automatic air conditioning, entertainment system and multifunctional monitor. “The cab is very spacious and quiet, has a Bluetooth hands-free system, and air-sprung seats and joysticks,” says Johann.

“With the ZX300-7 we have a well-equipped excavator of the most modern design with every convenience. Its low fuel consumption and the smoothly functioning exhaust after-treatment system are just a few of the advantages that contributed to the purchase decision.”



“Developing machinery in the best way possible”

Exciting technology

Norway's first two Hitachi ZX300LC-7 excavators were delivered in June 2020 to Inderøy-based construction company Farbu & Gausen AS. Founded in 1998, Farbu & Gausen has continued to grow and now has a wide selection of Hitachi excavators and wheel loaders.

“Reliability and operational safety are highly important to us, and Hitachi machines allow us to benefit from minimal downtime,” says Farbu & Gausen's General Manager Even Gausen. “All-in-all, Zaxis excavators are flexible, cost-effective and always ready for action.

“The ZX300LC-7s have only been with us for a short time, but I have already been impressed by them. I am delighted to see

that Hitachi is continuing to develop its machinery in the best way possible.”

The Zaxis-7 machines were delivered by authorised Hitachi dealer, Nasta AS. Sales Representative Trond Viktor Meland says: “It is fantastic that such a loyal and professional Hitachi customer gets to benefit from this landmark ‘first’. It's pleasing to know that Even's operators will be working with such innovative and exciting technology.

“The reaction from Farbu & Gausen's operators was superb. They were delighted to have the honour of driving Norway's first ZX300LC-7s, and are certainly looking forward to putting the new medium excavators to the test.”



“It makes my work easier”

Even better hydraulics

When Danish contractor Hans Ikjær Entreprenørforretning considered buying a new excavator, operator Nick Poulsen recommended a Hitachi. His opinion was based on his previous experience working with the ZX210, ZX250 and ZX470 models. “I really wanted to operate a Hitachi, as they have always worked well for me,” he says.

Fortunately, his employer listened, and Nick became the first operator in Denmark to work with a ZX250LC-7. On one of its first projects, preparing for a construction project in the town of Middelfart, he was impressed by the machine’s easy operation and TRIAS III hydraulic system.

“All the different settings work really well, especially for the arm and boom. When the arm is stretched there is no jump or vibration.

The hydraulics are so good that I can apply the pressure I want to both the arm and the boom. It is just a pleasure and makes my work easier.”

The excellent visibility provided by the Aerial Angle camera system was also beneficial. “We often work alongside apartment blocks, with people walking close to the machine. So, for safety reasons, it’s important that I can see everything happening around me.”

Finally, the redesigned cab has made a big difference in terms of comfort. “The larger door makes it easier for me to get in and there is more room for my legs. I’m almost two metres tall, so that’s a huge plus. I can sit comfortably, without having to move and reach for something, which feels satisfying.”



Complete control

Introducing the ZW220-7 – the safest, most comfortable and most technologically advanced Hitachi wheel loader to date.





The cab interior provides a comfortable working environment.



Integrated console and seat suspension gives a greater sense of control and seat-mounted electric control levers reduce fatigue.



Approach speed control maximises fuel efficiency on loading operations.



The payload checker helps you work more productively and accurately when loading trucks.



Higher engine output at lower engine RPM increases performance.

The ZW220-7 is the first Stage V-compliant wheel loader to be launched by Hitachi and the first in the ZW-7 range. Many years of extensive research have contributed to its development to ensure it meets the demands of European customers, from small business owners to large fleet contractors. Equipped with industry-leading features, it offers:

- increased safety and maximum uptime
- enhanced comfort in the cab
- improved profitability
- and is provided with extensive support throughout its life cycle.

Increased safety

The ZW220-7 is the safest machine in the market, thanks to superb all-round visibility and intelligent systems including the Aerial Angle camera system. This gives operators an exceptional 270-degree bird's-eye view of the job site. Also enhancing safety, the rear

obstacle detection and warning system alerts the operator if anything is close to the rear of the machine.

Enhanced comfort

The fully redesigned interior of the spacious cab has been created for the comfort of operators. It has some of the lowest noise and vibration levels in the market, and an improved operator's seat with mounted electric pilot control levers, and a 40% larger and fully adjustable armrest. Easy operation has been enhanced with the new monitor controller and convenient side switch panel.

Improved profitability

Owners will be able to increase their profits due to the impressive fuel economy and exceptional efficiency of the ZW220-7. Operators can monitor fuel consumption using the new ECO gauge and improve performance with several adjustable functions. Short loading



Visibility of the job site is excellent thanks to the Aerial Angle® camera system (optional) and new LCD monitor.



Safety is enhanced by the rear obstacle detection and warning system (optional).



The ECO gauge on the monitor indicates how to lower fuel consumption and reduce costs.



Maintenance is quick and easy due to improved access to components and anti-clogging radiators.

operations can be completed faster and more efficiently using the approach speed control feature. In addition, trucks can be loaded more accurately, saving time and money, thanks to the payload monitoring system.

Maximum uptime

In order to significantly boost uptime, the new ZW-7 wheel loader has been designed and built to deliver an ultra-reliable performance. Potential damage of major components is reduced by having over 60 guidance and warning messages to inform the operator about the machine's operational condition.

Uptime is also enhanced by high-quality Hitachi buckets, customised to suit the application, and robust ground engaging tools that are easy to install and replace. More durable components, intelligent prevention systems and easy maintenance features have also been included to save owners valuable time and money.

Life-cycle support

Hitachi provides a range of tools and services that have been created to help owners feel in total control of their machine and workload. These include remote monitoring systems, Owner's Site and ConSite (part of Global e-Service), and the ConSite Pocket app, which help to manage performance, track location and plan maintenance. In addition, the Hitachi Premium Rental programme gives customers the flexibility to extend their fleet to meet demand as their business grows.

Bill Drougkas, HCME Manager Product Management, says: "We're proud to unveil the next generation of Hitachi wheel loaders with the launch of the ZW220-7. During our research, owners and operators told us what they needed from a new wheel loader in terms of safety, uptime and comfort. The ZW-7 range will exceed their expectations, putting them firmly in control of their workspace, their business and their fleet." [Watch the movie](#)



[Watch the movie](#)



In pursuit of perfection

Europe's first Zaxis-7 large excavators are making a huge impact among owners and operators – with positive feedback on performance, efficiency, safety and comfort.



Watch the movie



It's the perfect demolition excavator according to J.H. Laarakkers, Germany



Norwegian operator Tor Erik Knutsen has 'everything he wants' with the ZX490LCH-7



Shannon Valley Group in Ireland is looking to the future with its first Zaxis-7 large excavator



Quarry operators are impressed by the new ZX490LCH-7 in Portugal

Space and noise improvements

The first Hitachi ZX490LCH-7 large excavator in Europe was delivered to Norwegian construction company Dobloug Entreprenør AS. It was the second Zaxis-7 model for the contractor, which already had a ZX350LC-7 medium excavator in its fleet.

Operator Tor Erik Knutsen personally selected the new machine after viewing photographs of it. The ZX490LCH-7 arrived in Vognvegen in Hamar at the end of August 2020.

“We are part of the whole process at this company – and here I’ve got everything I really want!” he said. Tor Erik has extensive experience working with large excavators, including a ZX470LCH-5 and ZX490LCH-6, which was rented to Dobloug Entreprenør in anticipation of the arrival of the new machine.

“The biggest difference is inside the cab,” he said. “Now it is more convenient, I hear almost nothing when I close the door behind me and it’s become even more spacious. I’m almost two metres tall and no longer need to push the seat back completely to reach the pedals as I have plenty of space.”

Fuel economy is a big plus

In August 2020, Ireland’s Shannon Valley Group took delivery of its first Zaxis-7 large excavator, a ZX690LCR-7. Equipped with a hydraulic breaker, its first task was rock extraction at the Central Park residential and commercial development in Sandyford, 10km from Dublin city centre. It spent five months on the project, working alongside the company’s ZX690LCH-6.

It’s easy for Shannon Valley to draw comparisons between the new Zaxis-7 and the earlier Hitachi models in its fleet. Managing Director Michael English says: “It’s quieter, a little faster, and lighter on fuel than previous models – the fuel economy is a big plus. The cab is also more comfortable, so our operators are happy.”

Shannon Valley Group invested in the latest model as it prepares for Stage V emissions regulations. The ZX690LCR-7 complies with these thanks to the combination of the selective catalytic reduction system, diesel oxidation catalyst and catalysed soot filter.

“We decided to invest in the Zaxis-7 model, because we are looking to the future. Stage V emissions are a factor for rock extraction on urban sites, so the decision was taken from an environmental point of view.”

Additional information and photography from *Plant & Civil Engineer* magazine (Nov-Dec 2020 issue)

Easy operation and exceptional safety

J.H. Laarakkers Rückbau und Recycling GmbH, headquartered in Rheinberg, Germany, relies on the strength of Hitachi machines for its demolition projects. It currently has seven Hitachi machines from 25 to 70 tonnes in its fleet, and the latest addition is a ZX490-7.

Delivered by local dealer Kiesel West, the new Zaxis-7 model

has been assigned with the rest of the Hitachi fleet to the company’s biggest ever project. Some former fashion houses in Düsseldorf-Stockum are being transformed into a modern residential and commercial area. Laarakkers is responsible for 280,000m³ of demolition work and 60,000m³ of earthworks.

A symbolic handover of the keys took place at the end of October 2020 with Managing Director Marcel Laarakkers, long-standing Specialist Advisor Siegfried Marmulla and Kiesel West Sales Specialist Waldemar Horch.

“The Laarakkers brothers don’t buy machines straight off the production line,” says Siegfried. “The new ZX690-7 is no different. Kiesel engineers have implemented some application-related requirements to the machine, including strengthened glass, and two proportionally controlled pedals for opening and closing the cutter attachment. This makes it the perfect demolition excavator.”

The best solution for quarrying

The ZX490LCH-7 is already proving popular among quarrying companies in Portugal. Four customers of local dealer Moviter have invested in the new model, including Windpark, Lda, owned by the IGE Group. It is the company’s first Hitachi excavator and Windpark General Manager Nelson Simões says: “We considered the total cost of ownership, compared to other machines, and the Hitachi excavator got the best numbers. After assessing our relationship with Moviter and the quality of the after-sales service, it was an easy decision.”

Another ZX490LCH-7 is working at a quarry owned by Agrepor in Canas de Senhorim, as part of a contract won by Socitop, Lda. “We wanted an excavator to work long hours, without stopping,” says Abel Torres, Socitop’s CEO. “We needed a strong and reliable machine, and also a high level of versatility. The ZX490LCH-7 is an excavator with Hitachi quality and excellent value.”

In Porto de Mós, Leiria, Garcogel has four quarries and specialises in the extraction of marble and limestone blocks. “In our region, there are several Hitachi ZX490 excavators. Our friends said it is a good machine, mentioning the good fuel consumption and overall productivity,” says Garcia Anastácio, founder and CEO of Garcogel. “We have found that the hydraulics are spectacular. The machine is fast, extremely precise and easy to work with.”

Adelino Ferreira, CEO of Brivel S.A., believes the new ZX490LCH-7 is an important asset to the company. “Our operators are delighted – the visibility, controls and feeling inside the cab are excellent. It’s quick and easy to change the attachments. The maintenance is also convenient and easy. The power and speed live up to the Hitachi name. With the support of Moviter, we believe we chose the best solution.”



Full marks for remanufactured components

Using remanufactured components in the maintenance of construction, quarrying and mining machines lowers repair costs, minimises downtime and reduces waste. *Ground Control* heads to Finland to find out more.



There are few industries in which machines and their individual parts have a harder life than in construction, quarrying and mining. In these tough working environments, component wear is unavoidable and certain parts will need replacing after a period of time.

As keeping machines in optimum condition is paramount, Hitachi owners have two options on replacement – either to buy a new Hitachi Genuine part or to choose a Hitachi Remanufactured component.

Just like new parts, remanufactured components will keep a Hitachi excavator, wheel loader or dump truck operating exactly as expected, as they are tested and made to the same exacting specifications. Remanufactured components also come with a Hitachi warranty, but are more affordable than new parts.

They are designed to lower operating costs and minimise unscheduled downtime, so they are a good choice for preventative maintenance, or to get back up and running as soon as possible.

The purchasing process is simple. A used part can be easily and quickly exchanged for the corresponding remanufactured component at a local Hitachi dealer, which will return it to one of Hitachi's dedicated centres to be remanufactured to the same high standards as new components. Once this work is finished, the part is then ready to go to another Hitachi customer, complete with a comprehensive warranty.

The Hitachi Remanufactured programme is sustainable too. The process allows Hitachi to lower waste and save resources by reducing the need for raw materials. It has the added benefit of being better for the environment as the 'core' product is rebuilt and then supplied back into the market.

Customer satisfaction

A strong advocate of Hitachi Remanufactured is Finland's official Hitachi dealer, Rotator. It mainly sells remanufactured parts for mining machines and larger-size excavators from the ZX250 upwards. Rotator's After-sales Director Jukka Oksanen says: "The most crucial thing for the customer is that they get the parts as soon as possible. Availability and delivery time are the most important, followed by price.

"Our customers have been satisfied with the remanufactured parts, pumps, delivery and quality. Sustainability is another benefit of selling these components, along with the 12-month warranty, of course. We always keep a stock of remanufactured parts available – and at a decent price, too. If the customer is happy, then we are happy."

One of its happy customers is Kone-Kostamo Oy, based in the south-west of the country. It has taken advantage of the Hitachi Remanufactured parts programme for the replacement of a key component on its ZX470LCH-5.

Kone-Kostamo currently owns a fleet of seven Hitachi excavators and mobile crushers to service the needs of its customers' quarries. After entering this sector of the aggregates industry in 1964, it is now one of the leading and most experienced rock-crushing contractors in Finland, employing up to 45 personnel depending on the season.

The Salo-based company only operates one brand of excavator, as it prefers to maintain and service its own fleet of construction machinery, and views the compatibility of parts between the different models as being an important factor. With an excellent working relationship with Rotator, it benefits from the supply of Hitachi



Genuine parts and any specialist technical information required.

The excavators are given a major refurb every 10,000 hours. When a main pump was needed for the ZX470LCH-5, Kone-Kostamo's Workshop Manager asked Rotator for a quotation. This included the favoured option of a Hitachi Remanufactured component, which was in stock and only took two days to supply and fit to the machine.

"We didn't have any spare pumps for this model, so buying the remanufactured part from the Hitachi dealer was faster than refurbishing the part ourselves," says Kone-Kostamo's Foreman, Karri Mäenpää. "This meant that we saved ourselves up to three



“We would choose to buy a Hitachi Remanufactured part again, especially as it is environmentally friendly”

Karri Mäenpää,
Foreman, Kone-Kostamo

weeks of downtime, which is vital when you need the machine every day to load the crusher.

“We work well with Rotator and this is a good example of how happy we are with the solutions they offer. It was an easy process: they collected the original ‘core’ component, that needs to be sent off and renewed by Hitachi, at the same time as delivering the remanufactured pump.

“We would choose to buy a Hitachi Remanufactured part again, especially as it is environmentally friendly, in that we’re helping to extend the life of the part. The peace of mind that comes with having

a one-year warranty for the pump is also a bonus. In addition, it was supplied at a good price and the machine was working again with minimal delay!”

High availability and productivity

As a contractor working for Kiertomaa Oy – the owner of the Saramäki quarry – Kone-Kostamo’s large Hitachi excavator must retain high levels of availability and productivity. This highlights the importance of getting the machine back to work as quickly as possible.

“The situation here is typical of the Finnish market,” adds Karri. “Kiertomaa can be flexible, and don’t have to worry about owning and maintaining the machinery. It’s easier for them to concentrate on selling and delivering the materials to road construction sites and asphalt factories.”

Kone-Kostamo started working at Saramäki quarry in August 2017 and each stint varies with demand. The ZX470LCH-5 moved back to the site in February 2020 and it will carry out the crushing process for three- to six-week periods, two or three times per year. In between times, it will move on to another one of the eight to 15 different quarries where it operates.

“The ZX470LCH-5 is better than the previous model, with less fuel consumption – and yet with more power and efficiency,” Karri explains. “It is the right size to work with this crusher and that is why 50-tonne machines are so popular for this application. We always have the same team with two operators working across two shifts from 6am until 10pm all year round.”

The reliable performance of the machine, supported by both Rotator and Hitachi, ensures high levels of availability and customer satisfaction. “Hitachi is a large company on a global scale,” he concludes. “We have had no issues with the machine. It is reliable and durable, and we’re happy with its productivity, and that it helps us to meet our targets of between 2,500 and 4,000 tonnes per day.”

Looking to the future

Thanks to Hitachi Remanufactured components, customers such as Kone-Kostamo have an affordable, available and sustainable way of keeping their machines working reliably in challenging environments. And the remanufacturing process will become even more vital as the construction industry seeks to extract the maximum value from machinery and parts while in use, as well as recover and regenerate most of these products and materials at the end of their initial service life.

“The lifespan of the machines is getting longer and instead of, say, 40,000 hours, they will be doing maybe 80,000 hours in the future,” explains Jukka. “Then of course we will have to repair and service them more. At that point, the Hitachi Remanufactured parts will also become even more important.”

To find out more about Hitachi Remanufactured components, please contact your local dealer, listen to the HCME podcast and read our in-depth white paper on *Onsite* (www.hitachicm.eu/onsite/).



Watch the movie



It pays to buy Hitachi

When purchasing parts for Zaxis excavators, a Belgian contractor has found that it pays to buy from its local authorised Hitachi Construction Machinery (Europe) NV dealer – especially for such critical components as the undercarriage. Designed specifically for Zaxis models, Hitachi Genuine undercarriages represent excellent value for money, exceptional durability and unrivalled reliability.

“It’s vital for Hitachi owners to keep their machines working in optimum condition,” says Thijs de Wilde, HCME’s Parts Sales Representative. “By using Hitachi Genuine undercarriages, you will ensure that your excavator will continue to work safely and efficiently for a long period of time, with low running costs and high levels of productivity.

“Like all Hitachi construction equipment, our undercarriages are manufactured using high-quality materials to guarantee extreme durability and reliable performance. They are developed using decades of engineering expertise and tested under the toughest job site conditions. They can withstand extreme stresses and will give your excavator a superior performance, as well as providing you with peace of mind.”

Despatched within 24 hours from HCME’s 53,000m² European Parts Depot in Oosterhout, The Netherlands, Hitachi Genuine undercarriages are available for speedy delivery. Similarly, if the undercarriage of an older Zaxis model needs to be replaced, there is a choice of two high-quality and cost-effective options. Hitachi 2Genuine and Hitachi Select Parts may cost less, but are tested to the same high standards as Hitachi Genuine Parts and come with a manufacturer’s warranty.

Less downtime

Danny Van Hasselt, a service technician workshop manager for HCME’s authorised Belgian dealer, Luyckx, echoes the views of Thijs: “The undercarriage is so important, because it is a critical part relating to the high performance of an excavator. The benefits of fitting Hitachi’s undercarriages are less downtime and excellent value for money. They are also a perfect fit as they are made only for Hitachi models and the quality ensures that they are long-lasting and hard-wearing.”

Danny recommends following Hitachi’s advice to regularly inspect the undercarriage for signs of wear and tear, and apply the appropriate maintenance procedures as and when required: “Checking the undercarriage – and especially parts like the tracks and rollers – at the start of every day can prevent further damage and unnecessary downtime.

“The most important aspect is that the undercarriage has the right tension. If it is too tight, there is increased wear on the components and this will be detrimental to the fuel consumption. However, if they are not tight enough, more dirt and other debris will interfere with the components and reduce their life expectancy.”

Reliability is key

The importance of reliability is emphasised by one of Luyckx’s long-standing customers, Vermetten Wegenbouw NV. The Merksplas-based company was founded in 1991 (under the name of Tuindecor R&C) by Managing Director Ron Vermetten and his father, Cor, with the aim of selling paving materials to retailers and private customers. In 1998, Cor and Ron went their separate ways and the company was renamed Vermetten Wegenbouw by Ron and his wife, Hilde.

The company has continued to expand over the years and is armed for future development with warehousing premises now covering more than 21,000m². It currently has over 50 employees, working with various sub-contractors mainly on public sector earthmoving, road construction and sewage projects.

However, it also remains true to its roots with the supply of various paving materials to the local market. This emphasises the family’s ambition to continue working towards steady growth in the relatively short term, but without losing the individuality of a family business.

Vermetten Wegenbouw is proud to have worked with Luyckx for more than a quarter of a century already and has a broad range of Hitachi construction equipment at its disposal, including: ten medium crawler excavators (two ZX85USs, a ZX135US, a ZX180, two ZX210s, two ZX225USLCs, a ZX250 and a ZX350); four wheeled excavators (three ZX140Ws and one ZX145W); and five wheel loaders (three ZW95s and two ZW180s).

“We appreciate how Luyckx treats its customers – and in particular how it treats our operators,” explains Ron. “They can just drop by anytime and talk about products to the staff at the dealership – and this is greatly appreciated. In addition, there are never any discussions. If there’s an issue, Luyckx solves it right away. After all, we’ve been a Luyckx customer for over 25 years!”

On the subject of Hitachi undercarriages, Ron is also appreciative: “It’s vital that our machines keep working to meet our customers’ deadlines, and so reliability is the key to ensure that there’s no downtime. When the time came to replace an undercarriage on one of our machines due to wear and tear, it was important to replace it with a reputable brand at a good price/quality ratio.

“We decided to buy a Hitachi undercarriage, as if it’s not supplied by the OEM and something goes wrong, it goes badly wrong! We had a negative experience in the past when we bought another brand of undercarriage. So, in the last few years it’s only been Hitachi parts due to their reliability, durability and availability.”



Vermetten Wegenbouw’s Managing Director Ron Vermetten, his wife Hilde and family



Smart mining solutions

Hitachi Construction Machinery Co., Ltd. manufactures ultra-large hydraulic excavators and rigid dump trucks to conquer the challenging working environments of the world's largest open-cast mines. However, its areas of expertise and innovations extend far beyond the production of machinery for the mining industry.



Since developing a mining excavator with an operating weight of 159 tonnes in 1979, Hitachi has continued to respond to the demand for even larger machines. The EX8000 is now top of the range, boasting an operating weight of 800 tonnes – among the largest in the world – and a bucket capacity of 40m³.

Hitachi's rigid dump trucks have been designed to efficiently transport resources that have been excavated at large-scale mines. The EH5000AC-3 has one of the largest loading capacities available in the market. In addition, the Hitachi trolley truck model has the capability of switching its power source to overhead electric cables

for uphill haul roads to achieve around twice the speed of a conventional diesel-powered model.

By consistently developing and providing mining companies and contractors with cutting-edge technology, products and services, Hitachi continues to generate added value for their operations. This is the culmination of the advanced technologies from within the Hitachi Group that have been refined through the manufacturing of high-speed trains and the development of social infrastructure.

Automation and interconnectivity

A good example is Hitachi Construction Machinery's autonomous haulage system (AHS), which combines with the advanced technologies of Hitachi, Ltd.'s traffic control system and Wenco's fleet management system (FMS) to make unmanned mining operations a reality.

A HCM Group company since 2009, Wenco empowers mining operations with the flexibility to: interoperate with any preferred solution for their unique data requirements and business processes; and uncover even more value as they approach a future of increased digitisation, data intelligence and autonomous processes.

Wenco's FMS already provides comprehensive support with a wide range of applications to optimise productivity and decrease operating costs, as well as extend equipment life and enhance mine safety. This ranges from the real-time monitoring of each dump truck to optimise vehicle operations and maintenance, to estimating mining quality and yield based on percentages of material or ore content.

Hitachi's latest AC-3 series rigid dump trucks are equipped with smart technologies that enable them to be part of the AHS solution. These innovations allow: automated navigation and route optimisation; optimised acceleration, braking and steering; and collision avoidance. AHS not only minimises human error, but also improves safety and offers a range of economic benefits.

Hitachi is working with other autonomous mining technologies and services to build an integrated ecosystem, in which everything is interconnected. This will allow data across an operation to be combined and analysed to give valuable insights, as well as reducing associated risks and costs.

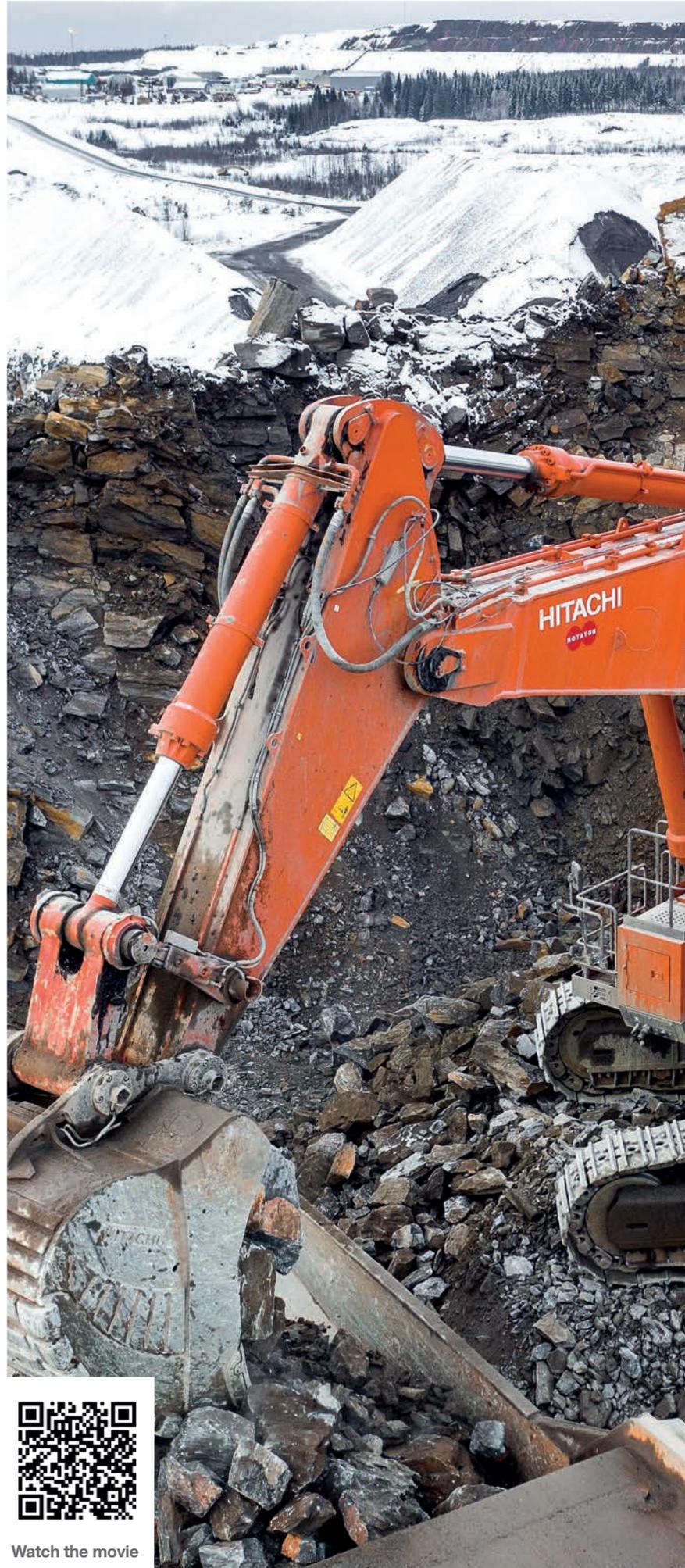
In addition, Hitachi Construction Machinery's remote machine monitoring system, ConSite, connects the Hitachi owner, site and dealer by sending monthly automated operational data reports. Intelligently monitoring each machine, the system sends emergency service and maintenance alerts in real time to improve availability and performance, as well as decrease maintenance costs.

Smarter mining excavators

The Hitachi vision of smarter mining excavators is also coming to life, as they connect with other elements of a mine to create a seamless operating experience. The new generation of EX-7 machines help mines to improve productivity and lower costs. They can semi-automatically self-diagnose when they require maintenance or repairs, and report incredibly detailed data.

Three of these latest Hitachi mining excavators are performing well on sites in Finland and Russia. The first to be delivered was a display model of the EX1200-7, unveiled at Bauma 2019. After the trade show, it was transported to the Finnish Hitachi dealer, Rotator, before delivery to E. Hartikainen Oy – one of Finland's largest private mining and earthmoving companies – and its first assignment at the Port of Helsinki.

At the end of the year, it was despatched to the Terrafame mine at Sotkamo, which produces nickel, zinc and cobalt at its metals production plant. The EX1200-7 was tasked with creating a new area, which will be used for dumping waste rock that has been removed from around the ore in the mine. E. Hartikainen is the contractor for drilling, blasting and removing waste rock and overburden, as well as levelling and reinforcing the ground in readiness for the heavy materials.





“Hitachi is the top brand for large mining excavators”

Heikki Pirnes

Operator, E. Hartikainen Oy

Uptime and reliability

Asko Putto, E. Hartikainen’s Site Manager, says: “Uptime is the key to our operation and we have a long history with Hitachi machines of this capacity, from two EX1100s to the new EX1200-7. We still have five of these 120-tonne machines in operation and so it was a natural progression for us to add the latest model to our fleet.”

According to Marko Ahonen, E. Hartikainen’s Work Manager at Terrafame, the EX1200-7 is the most important machine on site: “It’s so critical to production,” he says. “The whole package is better on the new model. It is more developed, especially in terms of the hydraulic system and digging force.

“The most important feature of this Hitachi excavator is its reliability, which is at a high level compared to other machines. The EX1200-7 performs well to reach our targets. Safety is another important aspect, and the Aerial Angle camera system is excellent in this respect. The stairway is also good, giving us easy access to enter the engine area safely.”

The whole package

One of the machine’s two operators, Heikki Pirnes, has enjoyed 20 years’ operating experience with a wide range of Hitachi excavators – from the EX2600-6 to the ZX225USLC – and has worked for E. Hartikainen for the past ten years. Having been in the driving seat of both -6 and -7 variants of the EX1200, he has noticed some significant updates in the new model.

“The -7 model is more comfortable: the seat is much better and there’s less noise in the cab. I use the monitor regularly, for example to adjust the climate control or check the status of the machine if there is an alarm. The screen is clear to view and the functionality means that it is easy to use.

“The digging force with the -7 is better and the daily operations are easier too. Aerial Angle is also a useful feature that provides me with a bird’s-eye view of the machine, so that it’s easy to check for obstacles to the rear and feels safer as it swings round.

“Hitachi is the top brand for large mining excavators and the best thing about the EX1200-7 is the whole package – it is fast, safe and stable, even when loading heavy materials. It is also good to operate, as it follows my movements and carries out many actions at the same time.”





“It is stronger and allows us to carry out a wider range of jobs”

Sergey Hoffman
Operator, Raspadskaya

Efficiency and availability

The EX1200-7 is also helping the Raspadskaya Coal Company (Raspadskaya) to reach optimal performance levels at its Mezhdurechensk site in Russia. In March 2020, its fleet of machinery was complemented by two new EX1200-7s for its open-pit Raspadsky coal mine.

This is the location of one of the main deposits, with coal reserves estimated at 100 million tonnes, enough for approximately 25 years of operation. The monthly productivity of one excavator is approximately 180,000 cubic metres, but the company plans to increase this figure.

“The Hitachi excavators have performed favourably, and are characterised by high productivity, low fuel consumption, and excellent safety,” explains the mine’s Director, Roman Mezhov. “For me, an important consideration is the high technical availability of the machines, and Hitachi does not let us down in this respect.

“Alongside operational efficiency, technical parameters such as bucket volume, digging depth, radius and unloading height were important factors when choosing the excavators. Ultimately, the Hitachi EX1200-7s were the perfect choice and are working efficiently.”

A cool excavator!

Operator Sergey Hoffman has been working with mining excavators for more than ten years, including a Hitachi ZX870: “In general, the controls and the location of the buttons and levers on the two Hitachi models is similar, but the scope for the EX1200-7 is much broader.

“It is stronger and allows us to carry out a wider range of jobs. I mostly work in Power mode, because this provides the most efficient performance and leads to better fuel economy. Thanks to this, I can easily fulfil my production quota. I also feel very comfortable working inside the cab, mainly thanks to the air-suspension seat and air conditioning. What can I say, the EX1200-7 is a cool excavator!”



Watch the movie

Model performance



Buy Hitachi scale models at
www.hcmewebshop.com