



Hitachi Construction Machinery helps to build a better Stockholm

IMAGE SOURCE: Hitachi Construction Machinery (Europe) NV

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- Hitachi Construction Machinery Europe (HCME) and KTEG developed the ZE135 electric excavator, which is part of the "Powering the Future" European tour.
- The ZE135, along with the ZX85-6EB and ZX55U-6EB models, was tested in Stockholm under cold climatic conditions for a significant infrastructure project.
- Power for the machines was supplied by a 300kVA/422kWh battery charging unit developed by HCME in collaboration with Alfen NV and ITOCHU.

- **Contractor Bäckströms participated in the project to meet Stockholm's upcoming low-emission zone requirements and align with their sustainable goals.**
- **The ZE135 was used to install a 500m stretch of cooling pipes for energy provider Stockholm Exergi, benefiting from its zero emissions and reduced noise.**
- **After Stockholm, the electric machines will continue their European tour and be showcased at Bauma 2025 in Munich, Germany.**

The ZE135 electric excavator, developed in a joint venture between **Hitachi Construction Machinery Europe (HCME)** and KTEG, has taken centre stage on the first leg of a unique European tour, headlined “Powering the Future”. The 14-tonne zero-emission machine was joined by two smaller electric models, the Hitachi ZX85-6EB and ZX55U-6EB, in a test held under cold climatic conditions on a significant infrastructure project in the Swedish capital of Stockholm.

The power for the machines was supplied by a 300kVA/422kWh battery charging unit that has been developed by HCME in collaboration with Alfen NV, the Dutch supplier of mobile energy storage systems, and Japanese trading company ITOCHU. Having signed a memorandum in October 2023, Hitachi Construction Machinery is working with its two partners to achieve zero emissions on European construction sites.

When contractor Bäckströms was asked by Delvator – the country’s Hitachi dealer – to participate in a project featuring three new electric excavators, the CEO Jerry Magnusson’s response was immediate: “We were incredibly happy and grateful, with three main reasons why we agreed to cooperate so quickly.

“Firstly, the City of Stockholm will implement a low emission zone in part of the city centre – where many of our machines work – at the end of this year. The second reason is that we aim to stay ahead of our customers' requirements and satisfy them before they ask for a different solution. And finally, our group has set sustainable goals and indicated how these will be met – and the test is an important part of this programme.”

It’s therefore no surprise that Backströms accepted the invitation to try out the three electric excavators. The company’s slogan, “We’re building a better Stockholm”, is also typical of the environmentally friendly approach adopted by its business at large. The contractor then approached its customer, energy provider Stockholm Exergi, to check if it was willing for the ZE135 and charging unit to work on a cooling system project in the city’s rejuvenated Meatpacking District.



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Zero emissions and less noise

“We’re aiming to get as close to zero primary energy use as possible and therefore the selection of the supplier and equipment for projects such as this are a top priority,” says Stockholm Exergi Construction Manager Johan Schröder. “The ZE135 is obviously quieter than conventional machines, we’re happy with the zero emissions and there’s even an onsite charging unit that is required to go with it.”

The ZE135 was a welcome addition to Bäckströms’ fleet to help install a 500m stretch of cooling pipes for Stockholm Exergi in February and March. The electric excavator was selected to excavate the trenches, lay the two-way pipes and backfill ready for the completion of the contract. The portable battery charging unit is a vital piece of supporting equipment for the electric excavators. It is compact, easily transportable and

convenient for an urban job site such as the Meatpacking District.

Bäckströms Project Support Anton Silvennoinen explains how this works in practice: “The ZE135 is used for about 3.5 hours each morning, and when the operator goes for lunch, we use the faster DC cable and recharge the machine’s battery in about 45 minutes. The work continues until the end of the day, then we leave the machine connected to the slower AC cable overnight. It keeps the battery warm for optimum performance – and it’s ready for work the next morning.”

Operator Sebastian Molin was given the opportunity to test the ZE135 on the project. “My feeling after driving the ZE135 for some time now is that it is comfortable and I love the hydraulics,” he says. “It’s also strong, very productive, and fun to try something new. “The biggest advantage of the ZE135 is the lack of noise. It’s much easier for me to communicate with my colleague when he is directing me, as we can hear each other so much better. At first, I was sceptical about testing the ZE135. However, now that I’m familiar with it, I think it’s a good machine – and I would certainly recommend other operators to give electric power a try as well.”

After their stint in the Swedish capital, the three electric machines will move on to visit other countries in Europe before they are highlighted as “Powering the Future” on the Hitachi stand at Bauma 2025 in Munich, Germany.

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