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HS 8200

Job report

Ilulissat, Greenland
www.liebherr.com

LIEBHERR

Material handling



On an icy mission

Around 250 kilometres north of the Arctic Circle, Liebherr is part of the largest construction project in Greenland's history. Munck Civil Engineering is carrying out dredging work for two airport projects with the HS 8200 duty cycle crawler crane. The Arctic conditions and logistics pose a particular challenge.

Two airport projects are being realised in the coastal towns of Ilulissat and Nuuk in the western part of Greenland.

To date, only propeller-driven aeroplanes could land here. The new airports will make it possible for larger aircraft to fly directly from the European or American mainland.

The new runway in Ilulissat is partly in the sea. A thick layer of clay sediment has to be removed from the seabed before it can be backfilled. Otherwise, settlement may occur over time. The Danish company Munck Civil Engineering, the main contractor for

the two projects, is using the HS 8200 duty cycle crawler crane from Liebherr for this dredging work. "In one day shift, our extraction rate can be up to 1,000 m³ of excavated clay material," explains construction manager Kevin van den Bos.

The 200-tonne duty cycle crawler crane is operating with a 35-metre long boom and a clamshell grab with a capacity of 3.5 m³. To achieve high productivity, the HS 8200 is equipped with Liebherr's Dredging Assistant, which shows the operator the position and fill level of the grab, the number and duration of work cycles or the handling performance in real time. The system also makes it easier to calculate the amount of material needed to fill the area for the runway.

Munck Civil Engineering finds all the rock material used for this within the project boundaries. "In total, we have to drill and blast around 5.5 million cubic metres of rock material. We then transport this to the construction section so that we can subsequently build a 2-kilometre long runway." After dredging, the duty cycle crawler crane is equipped with a stone grab to place stones along the new runway as part of the coastal protection programme.

Arctic conditions

The average temperature in this region in summer is plus 8 degrees Celsius. In winter, it can drop to minus 35 degrees. "It is very important for us to complete the dredging work before the ice spreads in the bay and makes our work impossible." The duty cycle crawler crane was supplied with the Liebherr cold package to ensure that it is also operational in these very cold climatic conditions.



“The machine runs really well and has exceeded our expectations. We will finish even earlier than anticipated. That is really positive.”

Kevin van den Bos
Construction Manager



HS 8200 on an icy mission:
(youtube.com)



Dredging Assistant:
(youtube.com)

In addition to the icy conditions, the logistics are a major challenge. The region is only supplied by a ship once a week which also brings parts and equipment for Munck Civil Engineering. A large store and the ability to repair everything itself is therefore particularly important for the company in this remote region.

Munck Civil Engineering operates the HS 8200 six days a week in ten-hour shifts. Kevin van den Bos is delighted with the good performance of the duty cycle crawler crane, “The machine runs really well and has exceeded our expectations. We will finish even earlier than anticipated. That is really positive.”



