

Press Release

ATLAS Excavator makes the Rhine safer

New ATLAS 36 ton excavator working on the Rhine for WSA Cologne – hydraulic adjustable boom makes safe work easier – high stress on material – in use for the safer waterway Rhine

Almost from midships the excavator boom reaches over the ship's side and the clamshell bucket dips along it into the Rhine almost vertically. "We had our new ATLAS 340LC excavator equipped with a hydraulically adjustable boom. This way you can reach down right at the ship's side without jeopardizing the stability of the boat", says Rolf Nagelschmidt, chief hydraulic engineer at the Wasserstraßen- und Schifffahrtsamt (WSA – waterways and shipping office) in Cologne, Germany, where the new 36-ton crawler excavator is in use. It is stationed on a barge, which is moved by the "Keiler", a 900-hp pusher-tug boat.

State-of-the-art machine technology – extremely durable

The 36-ton ATLAS 340 LC crawler excavator is powered by a Deutz 180 KW/245 hp engine with turbo charger/intercooling. The hydraulics control the AWE4 system. Two flow-on-demand controlled high-performance piston pumps and a fuel-saving load-sensing control make the 340 LC a sensitive working instrument – and a very robust one as well, since design, manufacturing and assembly come from one source at the ATLAS factory in Ganderkesee, and the modification work is performed by the ATLAS dealer Michels in Geldern. The guiding principle here is to build excavators that work reliably and have a long service-life. And that means that they are also able to cope with the tough conditions of operating on the Rhine. The new ATLAS 340 LC replaces the previous ATLAS 1804 LC, which had been in use at WSA for 20 years.

Many duties – demanding requirements

The WSA is responsible for the safety and maintenance of a specific section of the Rhine. Its duties include, among others, embankment protection, dredging, removing boulders, salvage work, and removing trees and they use the excavator to do these jobs. Embankment protection means,

for example, to insert heavy basalt rockfill into sections of the embankment. The material is extremely abrasive. In addition, the basalt boulders have to be practically tossed to slightly more distant places of the embankment in order to reach these areas. This subjects the material, statics, bolts and joints of the excavator to an exceptionally high stress. Especially during the winter season, the 340 LC is used to clear felled trees from the embankment area. To do so, it can drive ashore via a ramp, pick up the wood and store it on the barge.

A great logistical challenge is the removal of boulders from the fairway of the Rhine. Such boulders are detected during regular measurements taken by a survey vessel. In many cases the ATLAS excavator can grip them with its ATLAS orange peel grab and hoist them on board. If the boulders are, however, too big, a hydraulic hammer gets attached and used first. Then the fragments are taken on board. And there is always the standard duty of removing gravel and sand from the river bed in order to maintain the required water depth of 2.50 over standard low-water level in the fairway.

Great help for the driver – rear and side camera

“Sometimes I ask myself whether the engine is running since it is so quiet”, says Rainer Schlicht, the driver of the 340 LC. At a cab level of only 70 dB, one might even call it a silent excavator. What’s more, the cab – so to speak the office of the excavator driver – provides a comfortable and well-equipped working environment and a great view of the working area and the surroundings. Cameras at the side and the rear ensure safe driving and prevent accidents. The front windshield can be slided under the cab roof. Equipped with air conditioning and auxiliary heating, there is nothing to break the concentration on the job to be done – both in the summer and winter seasons.

Equipped for multiple tasks

The ATLAS 340 LC is equipped for multiple tasks. A quick-changing system makes it easy to change devices. The attachment tools are designed and built by ATLAS as well. For dredging and other jobs, a clamshell grab with a capacity of 1,200 liters and a completely closed orange peel grab with a capacity of 800 liters are available. If needed, it is also possible to work with a rock bucket of 1.260 liters capacity. A cargo hook (12.5 ton lifting capacity) with the applicable safety devices can be used for salvage operations, etc.

Hydraulically adjustable boom

In order to use the attachment tools in an optimal way, the standard excavator boom was fitted with a hydraulically adjustable boom (adjustable boom of 5,300 mm and jib of 3,200 mm working length), giving it maximum flexibility. This also includes working close to the ship's side without having to move over the excavator – the 600mm wide floor plates secure stable positioning.

The required modification work was provided by the regional dealer Michels GmbH, who is headquartered in Geldern and has additional locations in Bergheim and Essen. Equally important was the in-depth advice on the specific requirements the ATLAS 340 LC has to meet. Here Michels also provided constant support and, at the end of the day, also made the most economical bid.

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Images 1-7: The new ATLAS 340 LC crawler excavator with hydraulically adjustable boom in operation at the WSA Cologne.



Image 1

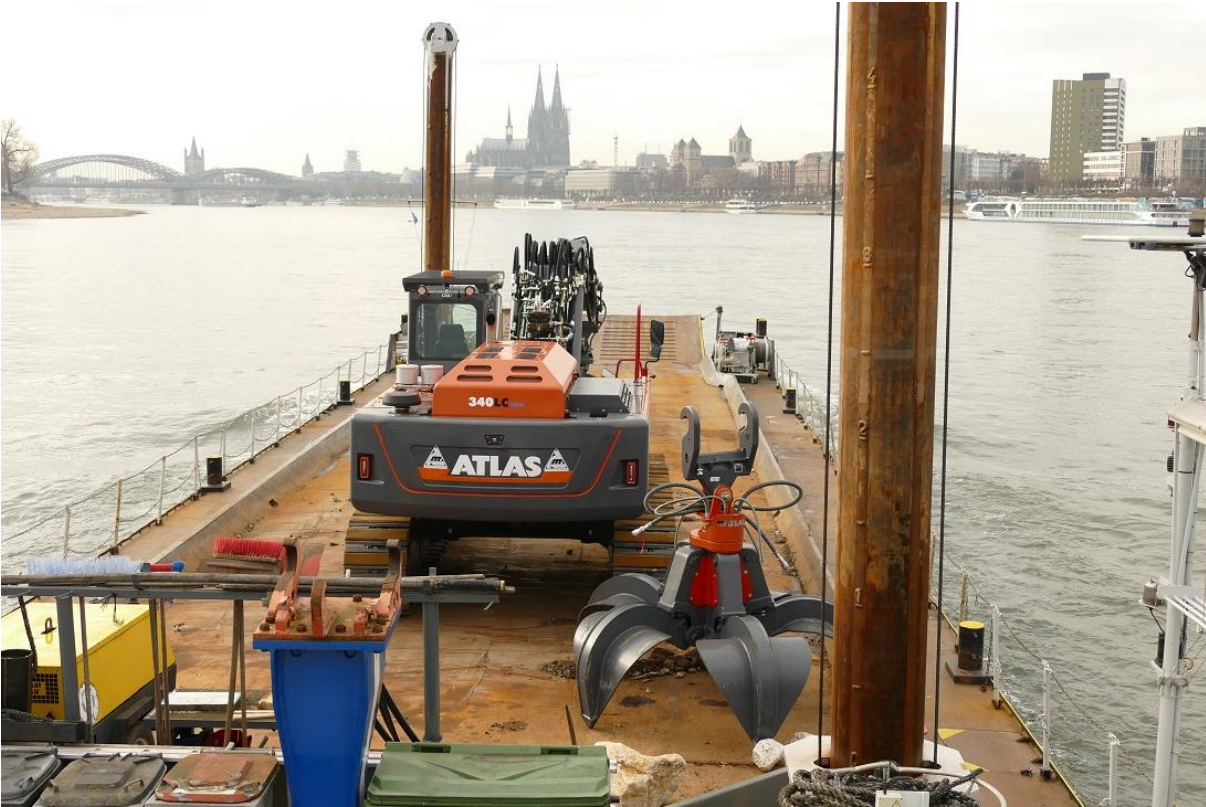


Image 2



Image 3



Image 4



Image 5



Image 6



Image 7

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