

Duty Cycle Crawler Crane

HS 8100 HD with Slurry Wall Grab

Job Report



“It is a modern machine with high load-bearing capacity and performance and at the same time it has low fuel consumption and compact dimensions. It is the key machine for us as far as slurry wall applications are concerned.”

Daniel Bucher
Head of Deep Foundation Applications
Implenia Switzerland AG

LIEBHERR

Zurich
Switzerland



The Situation

Installation of slurry walls and archaeological excavations on one jobsite: The work involved in the redevelopment and new construction of the Zurich Insurance Group Ltd. headquarters on the Mythenquai in Zurich requires utmost care. The existing headquarters is surrounded by buildings from different eras. Three of them are listed in the art and cultural

heritage protection catalogue. A particular challenge is the excavation of prehistoric stilt dwellings, which were found within the jobsite. Therefore, archaeological excavations are being carried out by Zurich's Department of Archaeology during the course of the construction work.

The Machine

This sensitive and historically interesting project was awarded to the company Implenia Switzerland AG. As this project requires utmost precision, the right choice of construction machine plays an important role. Implenia found the right choice in the Liebherr duty cycle crawler crane HS 8100 HD. The ever-increasing size of slurry wall jobsites with heavier grabs and reinforcement cages poses increasing demands

on the construction machines. Consequently, Implenia has replaced its existing 80-tonne duty cycle crawler crane with two HS 8100 HD, each with a load capacity of 100 tonnes. They will mainly be used for the installation of slurry walls and drilled piles, the drilling of filtering wells or vibro-flotation work.

The Mission

The duty cycle crawler crane is carrying out the current slurry wall work in Zurich using a grab. The slurry wall is 600 mm thick and 25 m deep. At times during the installation work the grab is working only 20 cm away from the facade of the listed buildings. This requires highest accuracy from man and machine. The Liebherr machine impressively demonstrates

its reliability and highest precision. "The operator is very satisfied with the handling of the HS 8100 HD," adds Daniel Bucher. Following the excavation of the slurry walls the reinforcement is inserted with the aid of the duty cycle crawler crane.

Technical Data: HS 8100 HD – Slurry Wall Grab

Engine power:	390 kW / 523 hp
Max. lifting capacity:	100 t
Max. winch line pull:	2 × 275 kN

Max. boom length in grab operation:	32 m
Max. chisel weight:	12 t / 16 t
Operating weight:	89 t