

Job Report Duty Cycle Machine HS 895 HD

Sand Quarrying in Australia: 400 t/h



LIEBHERR



Lang Lang
Australia



The Situation

Lang Lang - a small town with 1,500 residents in Victoria, Australia, 85 km south-east of Melbourne. Here, an extensive area rich in horizontal sand deposits offers unbelievable potential for the quarrying industry. The excavated sand is used in the construction industry. Up to now the work was carried out in a traditional manner: with hydraulic excavators and articulated dump trucks. The excavators can

The Machine

HS 895 HD - duty cycle machine with two 350 kN winches and manufactured in accordance with international standards. During the deployment in Australia it is handling 400 t of sand per hour. This high turnover is achieved by the HS 895 HD through very short working cycles. With a swing angle of approx. 180° it requires only 45 seconds per cycle. The digging depth can now be increased to 40 m, which compared to the hydraulic excavators, is an enormous advantage. The topsoil is removed in the traditional way by the hydraulic excavators, while the duty cycle machine makes full use of its higher working reach and excavates at depths that were

The Future

80 years - that is the operational life that the contractor expects of the deposits. The contractor has leased the ground from the government and pays a fee for each hectare of mined land. Since the deeper layers are easily reachable for the duty cycle machine, not only more sand can be excavated, but the costs involved can also be considerably

penetrate to a depth of no more than 15 m. Then, however, they have reached their limit due to the machine's geometry. Thanks to a new Liebherr duty cycle machine, type HS 895 HD, the contractor can now carry out the excavation work more efficiently and increase productivity. In other words: the deposits in Australian Lang Lang can, therefore, be optimally utilized.

unachievable to date. Liebherr's HS 895 HD is equipped with a mechanical roundnose grab from TGS - The Grab Specialist B.V. The grab, with a filling capacity of 5 m³, can optimally penetrate very hard soils or interlocked material thanks to the specifically rounded shape and the grab teeth. A high filling ratio of the grab can therefore be achieved even under difficult conditions. In combination with the Liebherr machine the grab is ideal for this type of excavation application. The HS 895 HD is fitted with a tagline winch, which contributes to quick and precise operation of the clamshell grab.

reduced. So far the work extends over only a small part of the total surface area available. If several Liebherr duty cycle machines were deployed in Australian Lang Lang in the future, sand excavation could soon become a very economically rewarding activity.

Technical data: HS 895 HD

Digging range:	5 - 30 m
Max. working depth:	40 m
Material handling:	400 t/h

Winch capacity:	2 × 350 kN
Operation weight:	approx. 185 t
Grab filling capacity:	5 m ³
Engine power:	670 kW (898 hp)