

Advances in track construction

Synergy effects thanks to combination travel gear.

The specific demands of particular construction sites determine to a large extent the choice of laying technologies and the expense and effort involved with the logistics. This applies in particular when maximum precision is needed in a very small space.

Our ABI MOBILRAM-System TM 10/12.5, with rail travel mounting, is a masterpiece of engineering technology and performance. It optimises mobile and flexible working in “normal” circumstances, and particularly in track construction.



This innovation has made it possible for us at ThyssenKrupp GfT Bautechnik to combine tried and trusted systems technology from the specialised construction sector with a real “hybrid travel gear”, which can be used as a self-propelling multifunctional chassis both on track laying as well as on normal substrates.

The travel gear consists of two mutually independent systems with caterpillar tracks equipped with highly flexible chain links for travel over difficult terrain as well, and an additional track travel mounting, which enables the travel gear to run on railway tracks independently, like a locomotive.

Special travel gear ...

Preparation

The independently mobile machine, based on a CAT 320C UL hydraulic mechanical digger, can be on site swiftly, at travel speeds of up to 20 km/h. No extra equipment is needed for the unit to be mounted on the track and leave it again; all that is needed is a level crossing or an appropriately prepared piece of track. No damage to the permanent way either, because the caterpillars are fitted with extremely flexible links.

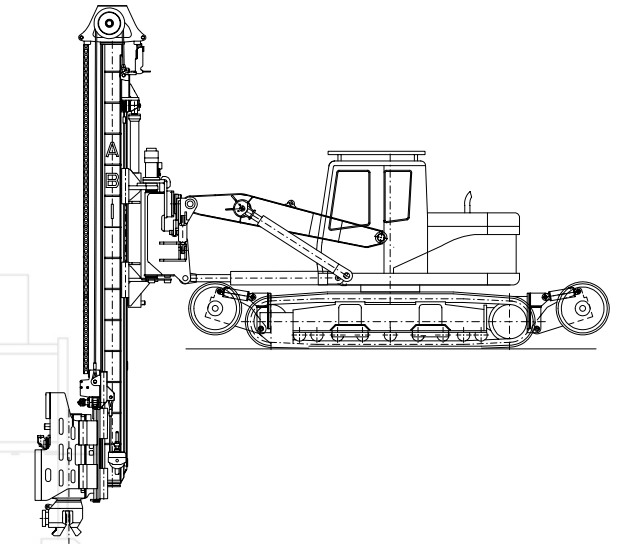
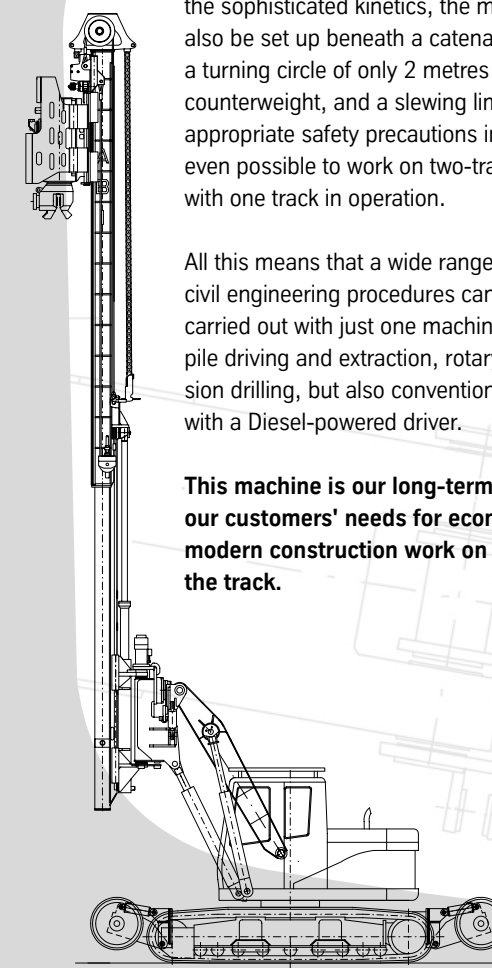
increases flexibility and mobility.

Function

At the site, the machine is mounted on the caterpillars, which gives it a degree of stability that has never before been achieved in comparison with other pile driving or drilling equipment. Thanks to the telescopic arm and the sophisticated kinetics, the machine can also be set up beneath a catenary wire. With a turning circle of only 2 metres at the counterweight, and a slewing limiter, with the appropriate safety precautions in place it is even possible to work on two-track stretches with one track in operation.

All this means that a wide range of special civil engineering procedures can now be carried out with just one machine. Vibrating pile driving and extraction, rotary and percussion drilling, but also conventional pile driving with a Diesel-powered driver.

This machine is our long-term answer to our customers' needs for economical and modern construction work on and around the track.



Technical data

Underground lowering depth	mm	2200
Leader inclination, front/rear	max. degree	4/5
Leader inclination, laterally	max. degree	4
Leader slewing range	max. degree	100

Prestressing force leader cylinder	kN max.	75
Extraction force leader cylinder	kN max.	140
Load capacity	kg max.	6000
Torque absorption	daNm	3000

Weight to piling equipment without attachment depending on carrier unit	t (approx.)	30-35
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Transport dimensions

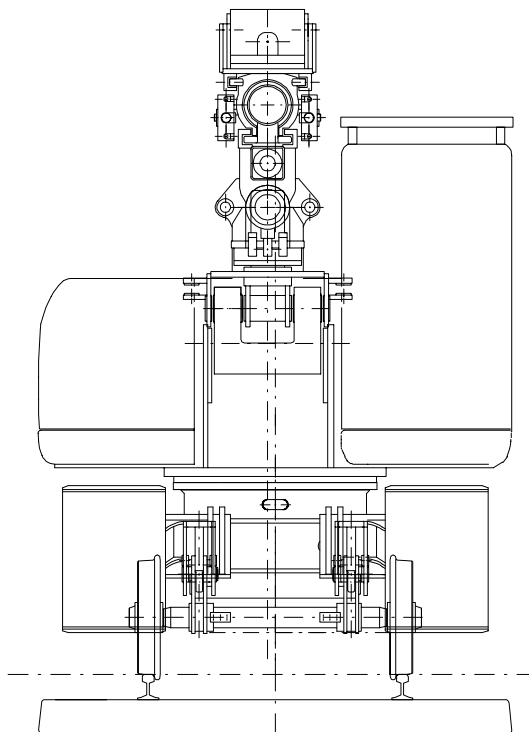
Length	mm	9550
Height	mm	3100
Width	mm	2800

increases efficiency and economy as well.

ABI MOBILRAM-System TM 10/12.5

Advantages in action

- With the ABI MOBILRAM-System TM 10/12.5, sheet pile walls and pipes in lengths of up to 12.5 m can be driven in and extracted by vibration.
- The high-frequency ABI vibrators with variable static torque values can be adjusted in frequency and amplitude, which means they can be optimally adjusted to individual conditions, such as on vibration-sensitive sites.
- Other possible applications are, for example, soil improvement measures by compaction or small-scale pile foundations for signal installations or noise protection walls.
- The ABI MOBILRAM-System TM 10/12.5 with rail travel mounting naturally fulfils all applicable safety requirements and exhaust gas specifications in the EC, as well as the high safety demands of modern railway operation.
- EBA type approval in accordance with Art. 32 of the Railway Construction and Operation Decree has been applied for, and the application for operational approval with the German Federal Railways has already been submitted.



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ABI MOBILRAM-System TM 10/12.5. Innovation thanks to “hybrid travel gear”.



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