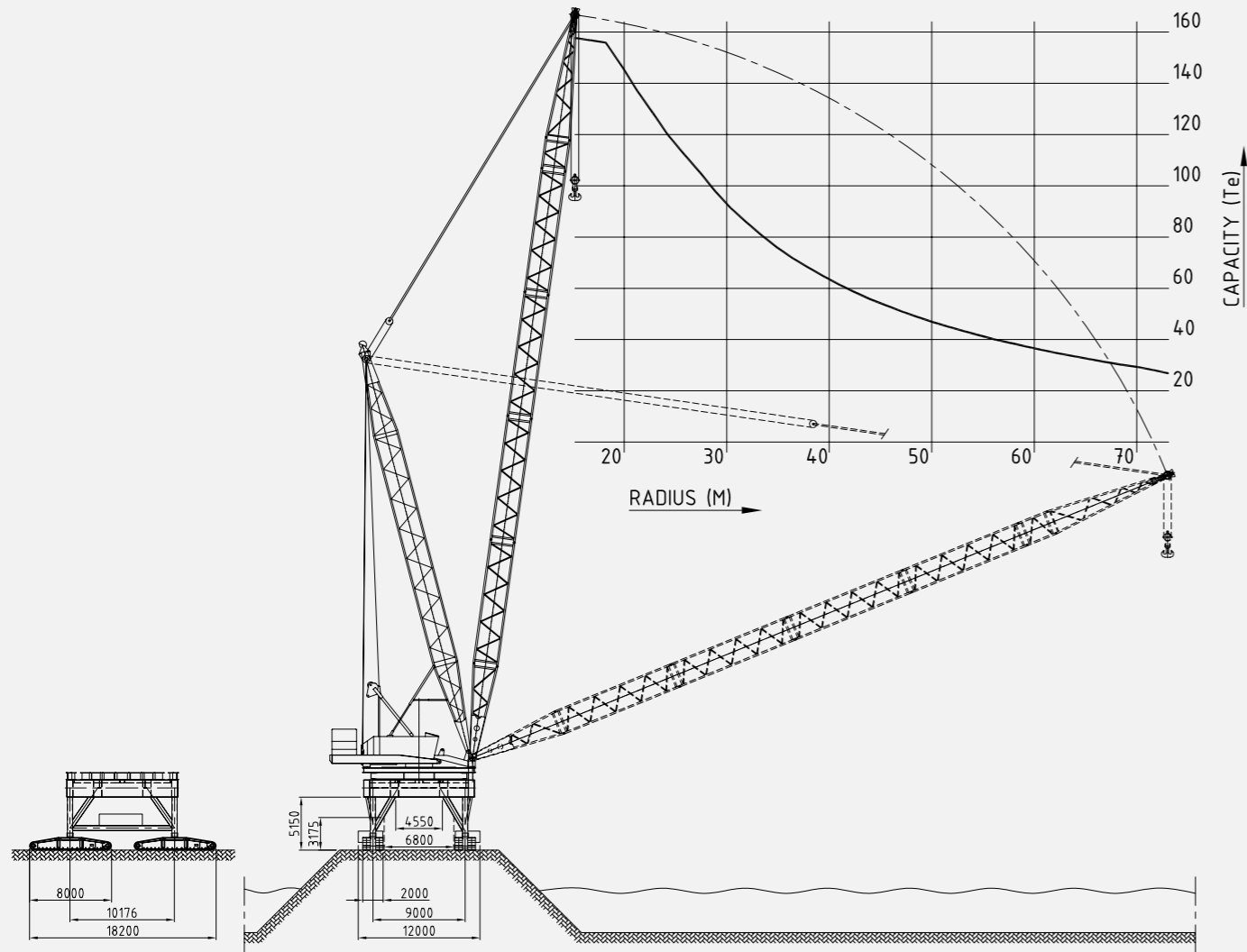


Lifting chart Self-propelled Portal Cranes



Solutions in breakwater construction





Company Profile

Mammoet offers customer-driven heavy lifting and transport solutions tailored to the client's needs. Mammoet, by virtue of its knowledge, experience and state-of-the-art equipment – in combination with its high quality and stringent safety standards – has been able to acquire a leading position in the lifting and transport market. As a result of these strengths Mammoet is able to rise to any challenge confronting the concern in the work involved at either an onshore or offshore location.

Mammoet has acquired an inestimable wealth of experience over the decades; moreover we have a passion for the development and implementation of new breakthrough technologies, and we exhibit a personal commitment. Our extensive range of equipment, together with all the requisite support material we may need, enables us to develop pioneering solutions – and ensures that we really can perform as a full service provider. Mammoet offers its clients an opportunity to delegate the full management of their projects, whereby Mammoet's project management extends to the adoption of the full responsibility for the planning, the scheduling and the entire logistic chain, inclusive of the complex interfaces of the various transport modalities.

Mammoet's Self-propelled Portal Cranes

Mammoet has developed a customized solution to meet the need for the safe and efficient construction of breakwaters. One requirement to be met by the new system was the reduction of the duration of projects of this nature. The solution developed by Mammoet allows the trucks to manoeuvre under the cranes during the lifting operations, thereby ensuring that the cranes and trucks can be operated in full independence from each other.

To this end Mammoet developed the necessary equipment in-house; the 'Mammoet Self-propelled Portal'. Each portal is equipped with 2x2 crawler sets with power packs. Manitowoc 4100W Ringer cranes are installed on top of the portals, which are seven metres tall. The clients' needs were met by modifying the cranes to a Heavy Duty Cycle Configuration.

The heavy materials are placed in position using the following equipment:

- an Armour Grab, for smaller rocks
- a Rock Grab, for larger rocks
- a Split-box, for gravel

Benefits

- a high-capacity crane, comparable with an 800-tonne crane performing main-boom duties
- the portals and cranes can operate in a very restricted area – as little as a width of 12 metres and a length of 16 metres
- the operator has an excellent view; the cranes are mounted on portals 8 metres tall. The operator's cab is located at the front of the ring, next to the foot of the main boom
- the cranes are modified for heavy duty cycles by means of double hook rollers and a heavy swing shaft
- the cranes are modified for the use of grabs, double hook blocks, and skip. The winches can be used in free-fall mode
- when so required the cranes can be equipped with a GPS system
- the cranes are equipped with a PAT LMI system which displays the working radius and the load on the hook
- the cranes are equipped with a hydraulic tugger winch
- the portal + crane can readily and rapidly be relocated as required
- the portal is hydraulically-driven by 8 driving motors, powered by a power pack operating independently from the crane
- the portal is levelled using hydraulic jacks

