

The mobile 22 HM fast-erecting crane with 40° 'super-raised' working angle.

**Job-
Report**



LIEBHERR

Mobile and flexible: The 22 HM at work on a roof in Dinkelsbühl.

The mobile 22 HM fast-erecting crane was recently put to work on the roof of a nursing home in Dinkelsbühl, Germany. The council ordered that the building complex be converted from an old people's home into a residential college, thereby offering suitable accommodation to the 400 or so students from the catchment area (administrative districts of Middle Franconia and Swabia) during the theoretical part of courses designed to train process mechanics for work in plastics and rubber technology.

In order to increase the number of beds, one necessary step was to reconstruct the roof. A total roof area of 1,450 m² had to be completely retiled in two stages. Since the roof could not be accessed from the road, the 22 HM was erected in the inner courtyard of the hospital.

Manoeuvring in the tightest of gaps

The 22 HM was able to really show off its strengths under the cramped conditions of this inner courtyard. Thanks to its steerable undercarriage, manoeuvring between buildings and in courtyards is no problem for this fast-erecting crane. It features a variety of other steering options alongside this undercarriage steering. The crane superstructure can be released from the undercarriage, leaving the latter to turn freely. Also, at speeds of up to 10 km/h manual steering via the remote control console enables the crane to be manoeuvred very accurately on even the most cramped construction sites.



22 HM performance data

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| Hook height | 19,0 m |
| Hook height at 20° raised working angle | 26,2 m |
| Hook height at 40° 'super-raised' working angle | 33,4 m |
| Radius | 25,0 27,0 m |
| 40° 'super-raised' working angle radius | 21,8 m |
| Load capacity at 25.0-m radius | 800 kg |
| Load capacity at 27.0-m radius | 700 kg |

Hydraulic one-man assembly

The subsequent assembly was over and done with in no time at all. In this respect, the 22 HM again proved its worth. A pneumatic raising and lowering device, with a maximum lift of 250 mm, had the 22 HM on its spindles with ease. The fast-erecting crane then unfolded itself using the tried-and-tested hydraulic erecting linkage system. The crane's high assembly curve enabled the jib to fold out 15 m above the edge of the roof.

The 40° 'super-raised' working angle

After being assembled, the 22 HM demonstrated another of its strengths. Thanks to the innovative 40° 'super-raised' working angle and consequent hook height of 33.4 m, it was possible for the necessary material to be lifted over the roof on the opposite side. The jib on this type of crane can be steplessly adjusted from 0° to 20° or from 20° to 40°. The new 22 HM is the only crane with an optional hydraulic 40° 'super-raised' working angle. Operations on particularly steep rooftops therefore pose no problem. Just like the fast-erecting 13 HM crane, the 22 HM has in turn successfully established itself on the market as a machine specially designed to provide the lifting technology needed by workmen.

The 40° 'super-raised' working angle

