

FLEET MOTOR SHOW TEMPORARY ARENAS DONINGTON PARK, LINCOLNSHIRE

Client: De Boer Structures

Installer: WT Specialist Contracts

Requirements

For the 1998 Fleet Motor Show, held at Donington Park race track in the East Midlands, two huge temporary structures were erected by De Boer Structures for EMAP Automotive Events to house the exhibition.

Both the giant re-locatable structures, one of them measuring 50m x 300m and the other 40m x 290m, had to be fully secured to the ground to ensure no movement or wind uplift. In addition, it was specified that the anchor points had to be re-usable at future events.



Solution

The two vast temporary arenas, constructed in just a few days by De Boer Structures, comprised pre-fabricated aluminium frames, with solid PVC walling, PVC roofs and wooden cassette floors, all supported by steel frame bases. De Boer's consulting engineer, David Townsend, recommended they were made totally secure by using Duckbill mechanical ground anchors.

Erected on made ground of variable quality, the structures were levelled before 270 Duckbill MR2 galvanised cast iron anchors were installed by sister company WT Specialist Contracts, each to a depth of 3m, and tensioned to working loads of 50kN or 30kN.

The anchors' load plates were then bolted to the steel frames. The whole efficient operation was made even more cost-effective by coating the anchors with flowable grout to protect them from corrosion and give a life expectancy of five years. After the event was over, and the structures removed, the anchors were capped off and concealed to enable them to be used at future events.

'U' channels were used to secure structure plates outside the perimeters and between the two arenas.

