

**MAIN TOWER TEMPORARY SUSPENDED CRADLE ACCESS
NORTH MAIN TOWER, ABOVE DECK
LOAD TESTS ON FEEDER CRADLES - NOTES**

Note that the specification for Beeche Platform, including feeder cradles, is based on BS EN 1808. FRB's testing for suspended cradles is based on BS 5974.

A static load test shall be based on 1.5 x rated load. The rated load of the feeder cradle is 4 men at 90 kg (note that BS EN 1808 assumed weight for operative is 80 kg, but 90 kg per operative has been adopted in the Beeche platform application).

Also consider that the feeder cradle shall be load tested with the main Beeche platform just suspended above the DOC and in this position the feeder cradle hoist and safety ropes are coiled up.

In order to include the self weight of the 4 wire ropes per cradle and the main power cable in the test (as would be the case if the cradle was suspended above the DOC when the main platform is at the top of the tower) – this could be achieved by placing the rope coils and power cable in the feeder cradle, although this may not be considered practical and may cause damage to ropes when operatives and/or test weights are included. An alternative is to add additional ballast weight to the cradle, so that the wire ropes and power cable can remain on the DOC (ensure there is sufficient slack rope between rope coils and hoists/Blockstops).

Ballast weights required to represent 4 no 9.5mm dia Maxiflex ropes, each 106m long and 105m long power cable (note that this is not part of rated load so that 1.5 x factor does not apply – only applies to rated load:

Take weight of Maxiflex rope as 0.36 kg/m (assume power cable has same weight): ballast required:

$$(4 + 1) \times 105\text{m} \times 0.36 \text{ kg/m} = 189 \text{ kg}$$

The static test load is $360 \text{ kg} \times 1.5 = 540 \text{ kg}$

Total load to be applied for static load test = 729 kg
Based on 22 kg weights = 33 no (726 kg)

For the dynamic load test the ballast for wire ropes should still be included (when the feeder cradle and Beeche platform are at the top of the tower, the weight of rope suspended below the cradle is transmitted via hoists) – dynamic load test to be based on 1.1 x rated load = 396 kg ; total load required for dynamic test (cradle to be operated etc.) = 585 kg.

Some of this load may include operatives, therefore calculation required to determine the number operatives and number of weights to make up required loads.

On behalf of CS&P
1 July 2011