



## Stage Deck Load Testing



Project: STAGING UNIT LOAD TESTS Certificate No.: SOU520348/1/A1  
Client: ALISCAFF LTD Office: CRAWLEY  
TOTTENHAM LONDON N17 ORJ  
Client's Order No.: Date: 19.7.95  
Inspection dates: 4.7.95 Order Status: COMPLETE  
First: Final: 4.7.95

This certificate is issued to **ALISCAFF LIMITED** following attendance at their **TOTTENHAM** works by the undersigned Surveyor on the date shown during which **Load Tests** on the undernoted items were witnessed and found to be satisfactory.

**TEST 1** 2440mm x 1220mm Stage Deck (Part No.7460) on 1200mm legs (Part No. 7511)  
Vertical loading of 3035 Kgs simultaneous with horizontal loading of 304 Kgs in both long and short planes  
Repeated with stage on 400mm legs (Part No.7465).

**TEST 2** 1220mm x 1220mm Stage Deck (Part No. 7462) on 1200mm legs (Part No. 7511)  
Vertical loading of 1518 Kgs simultaneous with horizontal loading of 153 Kgs in both planes.  
Repeated with stage on 400mm legs (Part No.7465).

Testing was generally in accordance with the **GUIDE TO HEALTH SAFETY AND WELFARE AT POP CONCERTS AND SIMILAR EVENTS & BS6399 Pt.1 1984.**

All items were inspected on completion of testing at each stage. No permanent set deflections were evident after the loadings' and the equipment was found to be sound and workmanship satisfactory.

I A G MORTIMER  
Surveyor to Lloyd's Register

NOTICE - This certificate is subject to the terms and conditions overleaf, which form part of this certificate.

FORM 1123 (07/93)

Lloyd's Register of Shipping, registered office: 71 Fenchurch Street, London EC3M 4BS



## Stage Deck Load Testing

The Third Edition of Temporary Demountable Structures published by The Institution of Structural Engineers states, in section 10.3.1, that stages should be designed to accept a minimum vertical static load of 5kN/m<sup>2</sup> with a simultaneous notional horizontal load applied in any one direction at the stage surface. Table 12 in Section 9 defines three categories of use the most onerous being Category 3 which requires the notional horizontal load to be 10% of the applied vertical load.

Tests witnessed by Lloyd's Register, have been carried out on a 1.22 x 2.44m stage deck (test 1) and a 1.22 x 1.22m stage deck (test 2) at 400mm high (the longest stage leg without knee brace supports), and 1200mm (the longest stage leg with knee brace supports). In witness of these tests certificate number SOU520348/1/A1 has been issued by Lloyd's Register.

The following calculations show the conversion of the applied loads from the above tests from kg into kN/m<sup>2</sup>.

### Test 1

|  |                |   |  |
|--|----------------|---|--|
| Stage Deck size                          | 1.22 x 2.44m   |   |  |
| Stage Deck area                          | (1.22 x 2.44m) | = | 2.9768m <sup>2</sup>                       |
| Total Applied vertical load              | 3035kg         | = | (3035kg x 9.81m/s <sup>2</sup> )           |
|  |                | = | 29773N                                     |
|  |                | = | 29.773kN                                   |
| Applied vertical load per m <sup>2</sup> |                | = | $\frac{29.773\text{kN}}{2.9768\text{m}^2}$ |
| <b>Applied vertical load</b>             |                | = | <b>10kN/m<sup>2</sup></b>                  |

Simultaneous to the vertical load, a horizontal load of 10% of the vertical load (304kg) was applied in both the long and short planes, this equates to 2.98kN and simulates a live load.

### Test 2

|  |                |   |  |
|--|----------------|---|--|
| Stage Deck size                          | 1.22 x 1.22m   |   |  |
| Stage Deck area                          | (1.22 x 1.22m) | = | 1.4884m <sup>2</sup>                       |
| Total Applied vertical load              | 1518kg         | = | (1518kg x 9.81m/s <sup>2</sup> )           |
|  |                | = | 14891N                                     |
|  |                | = | 14.891kN                                   |
| Applied vertical load per m <sup>2</sup> |                | = | $\frac{14.891\text{kN}}{1.4884\text{m}^2}$ |
| <b>Applied vertical load</b>             |                | = | <b>10kN/m<sup>2</sup></b>                  |

Simultaneous to the vertical load, a horizontal load of 10% of the vertical load (153kg) was applied in both planes, this equates to 1.5kN and simulates a live load.