HUMBERSIDE LIFTING SERVICES LTD.

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Destruction Test Report

Customer Details

Customer: Blakley Electrics

Customers Order Number: 35449

Humberside Lifting Services Job Number: 9005908

Test Details

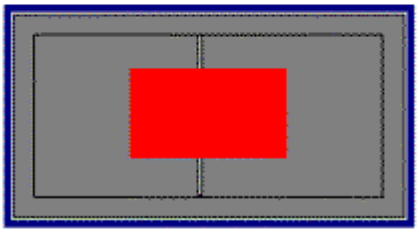
Destruction Test Item: Galvanised Steel Electric Housing Box

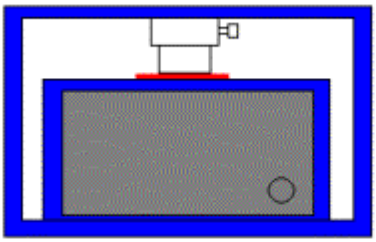
Calibrated Test Instrument: Yale 1000 bar hydraulic pressure gauge

Test Rig Number – 900 a

Blue – Test frame
Grey – Electric Housing Box
Red – Test Pressure Plate

Top View





Test Procedure

The galvanised Electric Housing Box was placed into a steel test jig which was purposely manufactured with a complete steel base for the Electrical Housing Box to be situated on and four raised angle supports were positioned to support the corners of the Electric Housing Box and a complete steel band supporting the angle as illustrated by the blue band in the above diagram. The test jig was then fixed to a hydraulic test rig as illustrated in diagram 2. The complete test rig was then inset into the ground so that the top of the Electric Housing Box was level with the ground surface. Pressure was then applied to the top centre of the Electric Housing Box raising the test pressure slowly.

Test Results

The Electrical Housing Box held firmly up to 10 tonnes (10000kg) with a deflection reading of 2mm between the lid and the outer steel. At 10.83 tonnes the lid started to give way and started to drop from the pressure. At 20 tonnes (20000kg) there was a deflection reading of 28mm between the lid and the outer steel. A maximum pressure of 28 tonnes (28000kg) was achieved, at which point the Electrical Housing Box Lid collapsed. On completion of the test the evidence showed that the angle inside the Electrical Housing Box which supports the lid had been the weakest point and with a downward pressure the angle had twisted and been pushed sideways moving it away from supporting the lid. The two longer sides of the Electrical Housing Box had also been damaged, which had been caused by the angle that supported the lid being twisted and forced into the sides of the Electrical Housing Box.

Please note a greater breaking pressure could be achieved by supporting the angle on which the lid rests.