

IN CONFIDENCE TO THE CLIENT

REPORT NO: MT-06/196

STRENGTH TESTING OF A CROSS-ARM SUPPORT BRACKET

CLIENT: **ROBERT OLDFIELD**
POWERCOR AUSTRALIA LTD.
PO Box 2067
WERRIBEE VIC 3030

DATE OF TESTING: JUNE 16TH 2006

DATE OF REPORT: JUNE 30TH 2006

TEST SYNOPSIS:

A prototype, aluminium cross-arm support bracket used to support the weight of a power pole cross-arm during maintenance operations was to be tested by Melbourne Testing Services (MTS) for load capacity. The test item, shown in Figure 1, was tested at the MTS Laboratory.

TEST REQUIREMENTS:

At the request of the client, proof load testing was required to determine if the support bracket could safely support an applied load of 300kg for a period of 15 minutes. A further test to induce failure by plastically deforming the support bracket was also required.

TEST PROCEDURE:

Testing was conducted by mounting the cross-arm support onto a timber power pole. An RHS steel beam was then positioned symmetrically onto the support brackets upper set of rollers (See Fig.2). Load was then progressively applied until the target proof test load was achieved. At this point the test load was maintained steady for 15 minutes during which time the support bracket assembly was monitored for visible signs of failure.

Once the 15 minute test period had elapsed, the test load was then steadily increased until a maximum load of 560kg had been applied. The test was then terminated at this point.

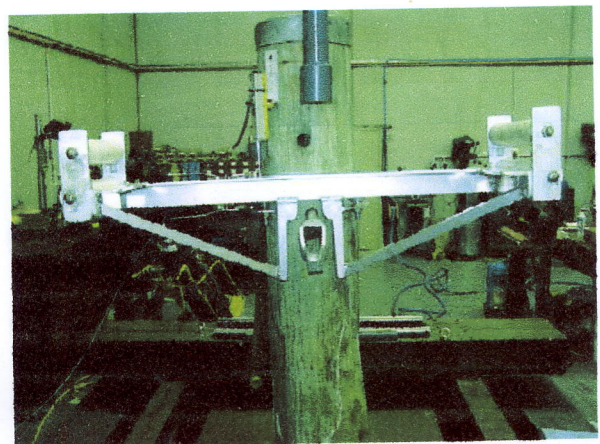


FIG.1.
CROSS-ARM SUPPORT BRACKET

TEST OBSERVATIONS:

After applying a proof load of 300kg, the device was observed to have flexed the aluminium cross-arm and deflection in the support rollers was also observed. However, there was no sign of permanent deformation or structural failure.

At the completion of proof loading, the test load was increased to 560kg. At this point the cross-arm support bracket was observed to have plastically deformed, however, there was no visible sign of fracture or structural failure in any of the support brackets components.

APPENDICES:

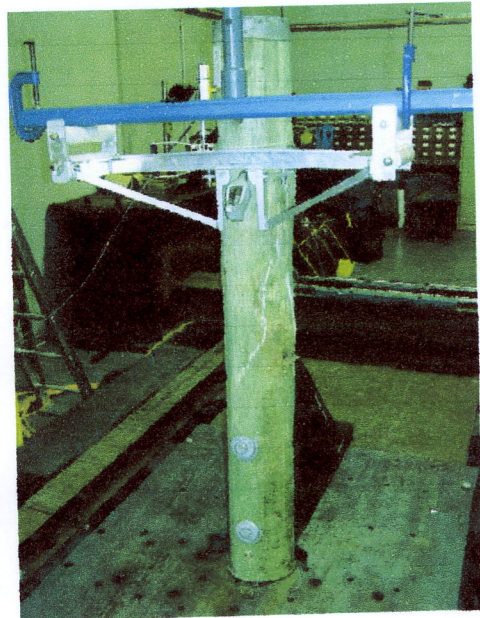
Test data curves for cross-arm support bracket are provided in Appendix A.

A diagram of the cross-arm support bracket is provided in Appendix B.

WITNESSES:

Testing was conducted at the premises of MTS and in the presence of the following witnesses:

- Frank Fitzgibbon of Central Power
- Steve Pert of Central Power
- Gary Herzberg of Hearhill Pty Ltd



**FIG.2.
TEST SET-UP**

Notes:

- 1) This report only indicates compliance of the cross-arm support bracket in its state at the time of testing. It should not be taken as a statement that all similar cross-arm support brackets or components of cross-arm support bracket in all states of repair, would also be found to comply.
- 2) It remains the responsibility of the client to ensure that the cross-arm support bracket and components as reported herein are representative of the entire production batch.
- 3) This report only covers the structural integrity of the cross-arm support bracket specific to the test procedure outlined herein.
- 4) Melbourne Testing Services shall take no responsibility for the procurement and authenticity of the cross-arm support bracket as described herein.
- 5) Melbourne Testing Services shall take no responsibility for the installation procedures and use of cross-arm support brackets described herein.

**RODNEY WILKIE
AUTHORISED SIGNATORY**

APPENDIX A

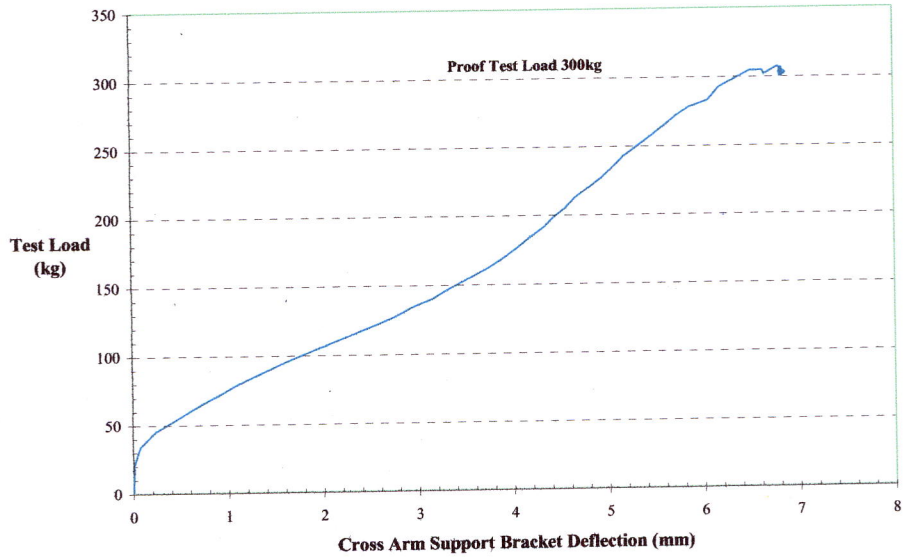


FIG.A1.
PROOF LOAD VS DEFLECTION CURVES

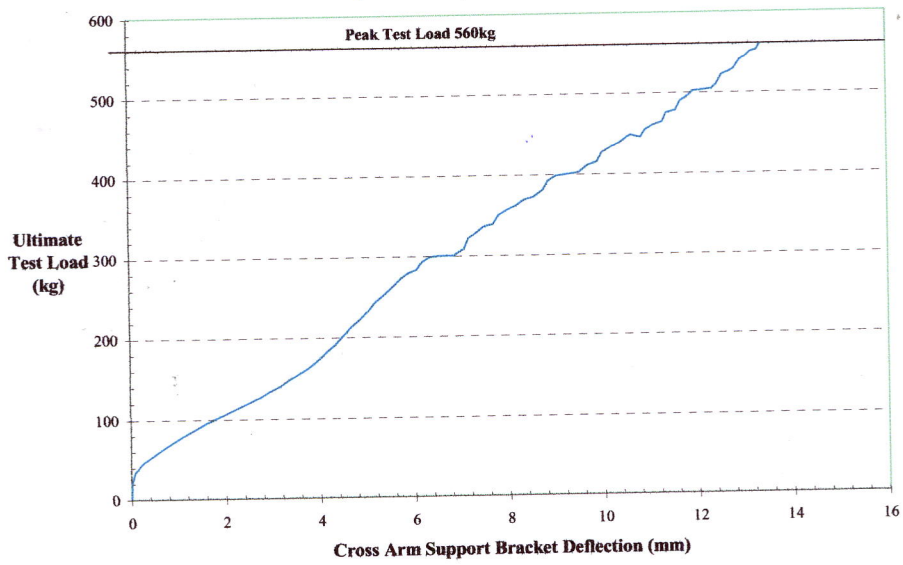


FIG.A2.
ULTIMATE LOAD VS DEFLECTION CURVES

APPENDIX B

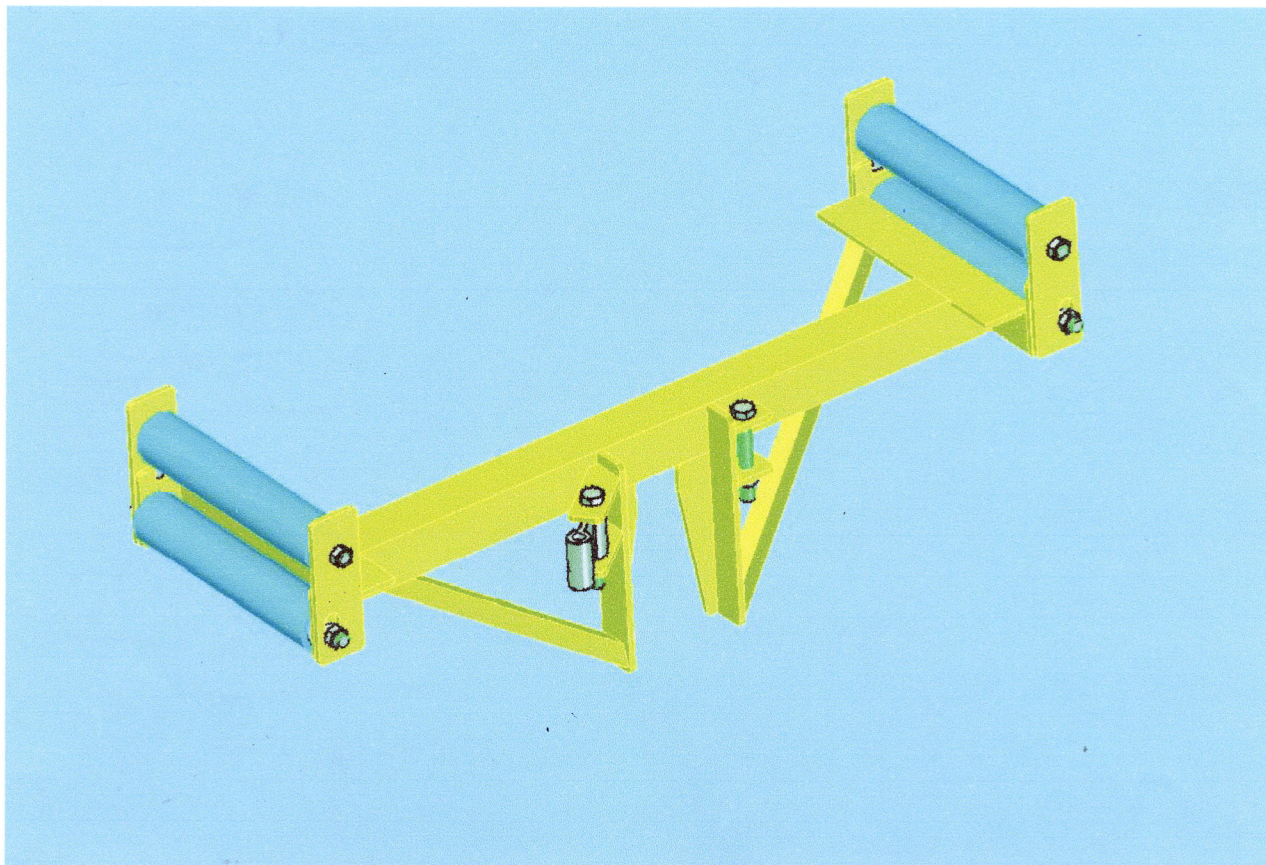


FIG.B1.
CROSS-ARM SUPPORT BRACKET



TEST CERTIFICATE

FOR REPORT MT-06/196

CLIENT: POWERCOR AUSTRALIA LTD
PO BOX 2067
WERRIBEE VIC 3030

EQUIPMENT DESIGNATION: *Cross-Arm Support Bracket*

MANUFACTURER: *HeartHill Pty Ltd*

PART NO: *CASB-800*

SERIAL NO: *PP-007*

SAFE WORKING LOAD: *100 kg*

COMMENTS:

The cross-arm support bracket, as described in test report MT-06/196 has been type tested to a load of 560kg without structural failure.

CONDITIONS:

- 1) This certificate is specific to the tested unit, tested on the 16/06/06.
- 2) It remains the responsibility of the manufacturer to ensure that the cross-arm support bracket and its associated components as reported in MT-06/196 are representative of the entire production batch.
- 3) This certificate only covers the structural integrity of the cross-arm support bracket specific to the test procedures outlined in MT-06/196.
- 4) Melbourne Testing Services shall take no responsibility for the procurement and authenticity of the cross-arm support bracket as described herein.
- 5) Melbourne Testing Services shall take no responsibility for the workmanship, safety and performance of cross-arm support brackets as described herein.
- 6) Melbourne Testing Services shall take no responsibility for any subsequent alterations or design changes that may affect the safety and performance of cross-arm support brackets as described herein.
- 7) Melbourne Testing Services shall take no responsibility for the installation procedures and use of cross-arm support brackets described herein.

RODNEY WILKIE
AUTHORISED SIGNATORY

DATE: 5/10/2006