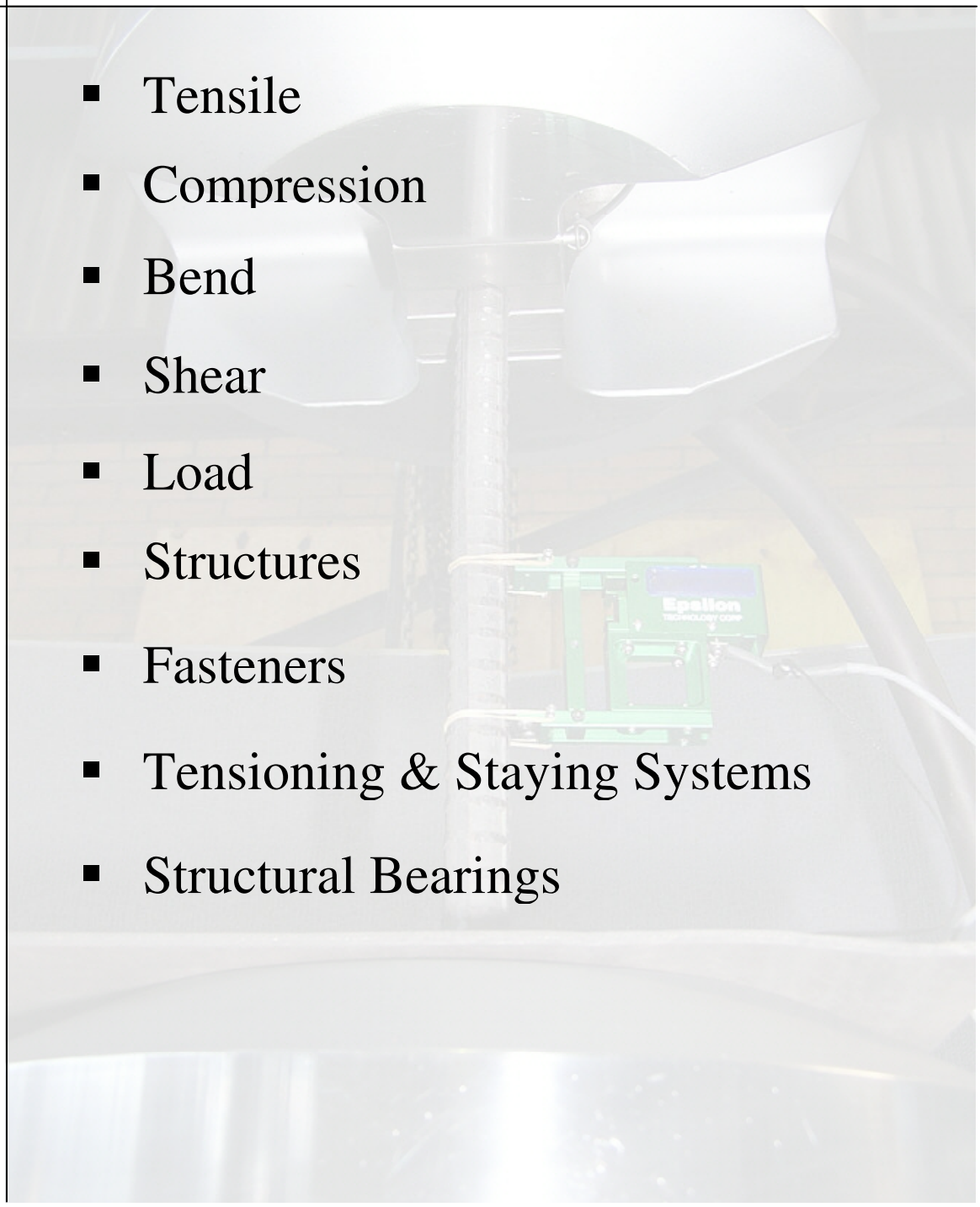
Melbourne Testing Services

Mechanical Testing



- Tensile
- Compression
- Bend
- Shear
- Load
- Structures
- Fasteners
- Tensioning & Staying Systems
- Structural Bearings

NATA
ACCREDITED FOR TECHNICAL COMPETENCE

Melbourne Testing Services A.C.N. 088 395 153.
Unit 1/15 Pickering Road Mulgrave, Victoria 3170, Australia
Telephone: 03 9560 2759, Facsimile: 03 9560 2769, Mobile: 0419 116 733
E-mail: rodwilkie@melbtest.com.au Web Site: www.melbtest.com.au

Melbourne Testing Services

Unit 1/15 Pickering Road
Mulgrave, Victoria 3170
Telephone 03 9560 2759
Mobile 0419 116 733

IN CONFIDENCE TO THE CLIENT

REPORT NO: MT-07/227-A

LOAD TESTING OF PORTABLE DRUM STANDS

CLIENT: **GARY HERZBERG**
HEARTHILL PTY LTD.
FACTORY 3, 35 GILBERT PARK DRIVE
KNOXFIELD VIC 3180

DATE OF TESTING: JUNE 25TH 2007

DATE OF REPORT: JULY 6TH 2007

TEST SYNOPSIS:

A pair of "Portable Drum Stands" used to support electrical cable drums was to be tested by Melbourne Testing Services (MTS) for load capacity. The drum stands, as shown in Figure 1, were manufactured from steel, telescopic square hollow section tube and steel plate material. Two roller bearings secured with M12, Grade 8.8 bolts were incorporated into the top and side of the outer tube to support the drum spindles.

Two lengths of tubular steel pipe were provided for the spindles to span between the two support stands.

The 5 Tonne Spindle was a length of 80mm nominal bore x 4mm wall thickness tube.

The 9 Tonne Spindle was a length of 89.3mm OD x 66.3 ID x 11.5mm wall thickness, heavy duty steel tube.

FIG.1.
PORTABLE DRUM STAND

TEST ITEM IDENTIFICATION:

The drum support stand was identified by the following details as provided by the client:

- Manufacturer: *Hearthill Pty Ltd*
- Working Load Limit: *Rated per Spindle Size*
- Model Number: *DJS-58T*
- Serial Number: *2007-00P-PR*

TEST REQUIREMENTS:

At the request of the client, type load testing was required to determine if the drum stand assembly could support a Working Load Limit (WLL) of **Five (5.0) tonnes** using the 80mm nominal bore x 4mm wall thickness tube on both the central roller and cantilever roller supports without bending or structural failure.

As specifically requested by the client, testing was required with the cantilever spindle supports located at the 2nd highest connection point of the drum support stand (See Fig.2).

Nine (9.0) tonne WLL heavy duty testing using the 89.3mm OD x 66.3 ID x 11.5mm wall thickness, heavy duty steel tube was required on the central roller supports only.

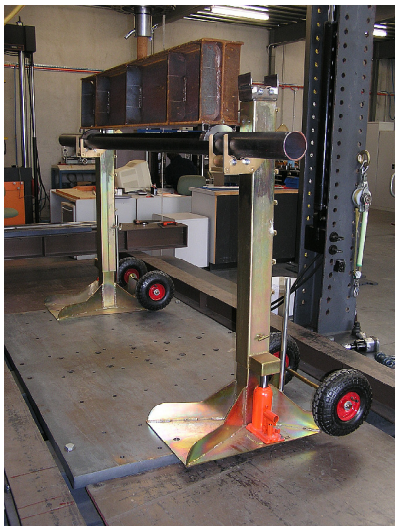


FIG.2.
DRUM STAND TEST SETUP

TEST PROCEDURE:

Testing was conducted by assembling the drum stands beneath a hydraulic testing actuator. The support stands were positioned to provide a centre to centre spacing of 1.8 metres and an end shear span of 100mm.

The tubular steel spindles were then assembled onto the roller supports and two half circular load adaptors were positioned on the spindle to provide loading points simulating the normal loading conditions from the flanges of a cable drum (See Fig.3).

Testing was conducted by applying a test load initially to the nominated WLL, followed by a second load increment of 1.5 times the Nominated WLL. At each load point the load was maintained for a period of 60 seconds.

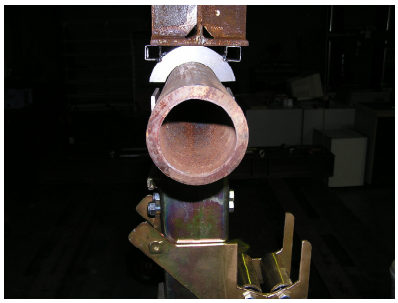


FIG.3.
SPINDLE LOADING DETAIL

TEST OBSERVATIONS:

Visual inspection of the drum support stands both during and at completion of the testing did not reveal any sign of failure or permanent deformation to the spindle or roller support assemblies.

COMMENTS:

Load testing of the Hearthill drum support stands confirmed that the stands could safely support a static test load of:

- 8.0 tonnes or 1.5 times the nominated **WLL of 5.0 tonnes** without collapse or visual signs of failure on both the central and cantilever support rollers when fitted with the 80mm nominal bore x 4mm wall thickness tubular spindle.
- 13.5 tonnes or 1.5 times the nominated **WLL of 9.0 tonnes** without collapse or visual signs of failure on both the central and cantilever support rollers when fitted with the 89.3mm OD x 66.3 ID x 11.5mm wall thickness, heavy duty steel tubular spindle.

Notes:

1) Melbourne Testing Services Pty Ltd shall not be liable for loss, cost, damages or expenses incurred by the client or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Melbourne Testing Services Pty Ltd be liable for consequential damages including, but not limited to, lost profit, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested.
2) This report is specific to the drum stand assembly in its state at the time of testing. It should not be taken as a statement that all similar drum stand assemblies or components of drum stand assemblies in all states of repair, would also be found to comply.
3) It remains the responsibility of the client to ensure that the drum stand assembly and components as reported herein is representative of the entire production batch.
4) This report only covers the structural integrity of the drum stand assembly specific to the test procedure outlined herein.
5) Melbourne Testing Services shall take no responsibility for the procurement and authenticity of the drum stand assemblies as described herein.
6) Melbourne Testing Services shall take no responsibility for the installation procedures, stability and use of drum stand assemblies described herein.
7) Melbourne Testing Services shall take no responsibility for the load capacity, installation procedures, stability and use of drum stand assemblies were the lower adjustable roller supports are used.

RODNEY WILKIE
AUTHORISED SIGNATORY

Factory 3, 35 Gilbert Park Drive
KNOXFIELD Victoria 3180
Telephone 03 9763 9275
Mobile 0400 392 500

CERTIFICATE OF COMPLIANCE

FOR REPORT MT-07/227-A

EQUIPMENT DESIGNATION:	***Portable Drum Stands***
MODEL NUMBER:	***DJS-58T***
SERIAL NUMBER:	***2007-OOP-PR***
MANUFACTURER:	***HeartHill Pty Ltd***
WORKING LOAD LIMIT:	***9 Tonnes (per pair)***
SPINDLE TYPE:	***89.3mm OD x 66.3mm ID x 11.5mm wall thickness, Heavy Duty steel tube.***

COMMENTS:
The portable drum stands described in test report MT-07/227-A, when fitted with a 89.3mm OD x 66.3mm ID x 11.5mm wall thickness Heavy Duty steel tubular spindle, have been type tested to a load of 13.5 tonnes without structural failure.

CONDITIONS:

1) It remains the responsibility of the user to ensure that the portable drum stands are used in a safe manner and in accordance with the manufacturer's normal operating procedure.
2) This certificate only covers the structural integrity of the portable drum stands specific to the test procedures outlined in test reports MT-07/227-A.
3) HeartHill shall take no responsibility for any subsequent alterations or design changes that may affect the safety and performance of portable drum stands as described herein.
4) HeartHill shall take no responsibility for the installation procedures and use of portable drum stands described herein.

Factory 3, 35 Gilbert Park Drive
KNOXFIELD Victoria 3180
Telephone 03 9763 9275
Mobile 0400 392 500

GARY HERZBERG
HEARTHILL PTY LTD **DATE:**