

INSPECTION REPORT

SGS FILE REFERENCE: 5101568901

REPORT: Comparison of TK1650 Roll Formed Galvanised Post with
BHP Waratah

CLIENT: R.C. MacDonald

CONTACT: Barry Bunting

DATE: 15-3-04

1.0 Scope

You asked us for a strength comparison of the above two versions. We subjected them to 4 point bending in our Avery Universal Testing Machine (Figure 1). Both were bent to a permanent deformation of 10mm. Moment vs Deflection readings were taken. We believe this test best approximates loads in the field eg when inserting the Waratah-pressure from stock etc.

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Samples will be retained for two (2) weeks after test date before disposal at SGS New Zealand Limited's discretion. Returning of samples to be advised in writing. Storage (when agreed by SGS New Zealand Limited) or return of samples at client's expense.



Figure 1: TK1650 in 4 Point Jig

2.0 Result

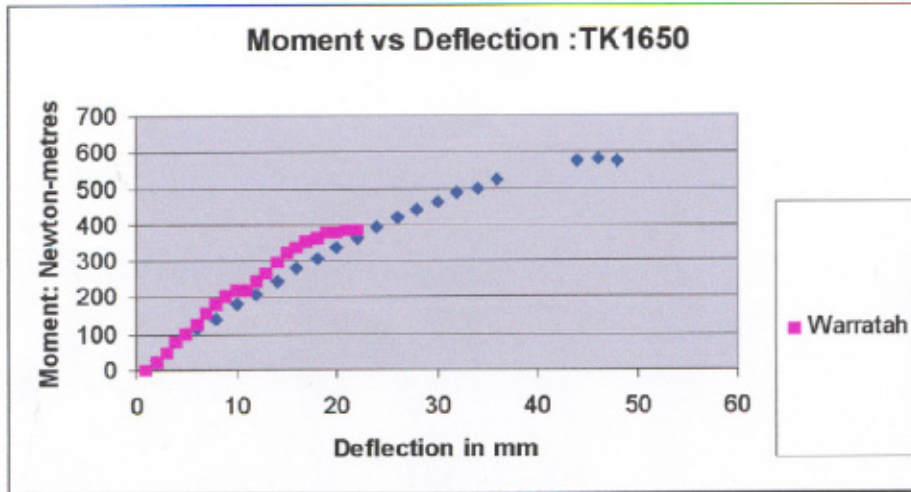
The TK 1650 had the same elastic stiffness to the Waratah but had higher resistance to plastic deformation: The TK1650 started deforming plastically at 580 N-metres the BHP Waratah at only 400 N-metre (See Graph of results below)

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IAAF200



Reported by Dr. D. L. Holt (Sc.D MIT)
Materials Engineer

Checked by Dean Currie
Manager NDT

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