

**SIRIM Berhad**

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(Company No: 367474-V)

**TEST REPORT**

REPORT NO : 2000CB0148

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Our Ref : TSD 452/15/1-16

Issued by : **Construction and Building Materials Testing Section**

Issued date : **27 MAR 2000**

Product : STEEL ROOF TRUSS STRUCTURE

Reference Standard/  
Method of test : Manufacturers specification.  
Static Load Test.

Applicant : TONG YONG METAL SDN BHD.  
Lot 5781 & 5782. Taman Selamat. Alma.  
14000. Bukit Mertajam.  
Seberang Perai Tengah.  
Pulau Pinang.  
(Att: Mr. Chua)

Description of sample : A system of Steel Roof Truss Structure was tested at factory.

Date received : 15.03.2000

Job No. : 00TSD0628

Prepared by:

YM RAJA NOR SIHA  
Specialist Technical Executive



Approved by:

MOHD. FAUZI ISMAIL  
Manager  
Construction and Building Materials Testing  
Section  
Testing Services Department  
SIRIM Berhad.

# TEST REPORT

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## Test results.

Submitted by : TONG YONG METAL SDN BHD.

Sample : Steel Roof Truss.

Test location : Manufacturer's site.

Method of testing : Static load test .

## Description of test sample:

Nos. of steel roof truss : 4 nos.

Spacing : 4 ft.

Span length : 22.0 ft.

Pitch : 30 degree.

## Material :

**TRUSS.** Galvanized Iron (high tensile)

Thickness : 0.55 mm.

Size of top chord : 40 mm x 75 mm.

Size of bottom chord : 40 mm x 75 mm.

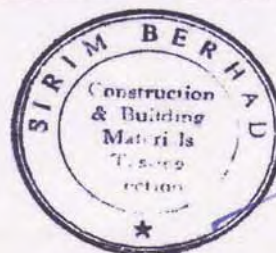
Struts : 40 mm x 50 mm.

**BATTEN.** Galvanized Iron (high tensile)

Thickness : 0.55 mm.

Size : 40 mm x 50 mm.

| Tests                                                                                                                             | Result                                                                                                                                                                             |
|-----------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A total load of 1384 kgs was assembled on the steel roof truss assembly and the deflection were recorded at point 1 ,2 , 3 and 4. | Point 1 : 1.64 mm.<br>Point 2 : 3.24 mm.<br>Point 3 : 3.22 mm.<br>Point 4 : 1.35 mm.<br><br>The steel roof truss system withstood the total load of 1384 kgs without any collapse. |



*Jibe*  
27 MAR 2000

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Thickness : 0.55 mm.

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Size of bottom chord : 40 mm x 75 mm.

Struts : 40 mm x 50 mm.

**BATTEN.** Galvanized Iron (high tensile)

Thickness : 0.55 mm.

Size : 40 mm x 50 mm.

| Tests                                                                                                                              | Result                                                                                                                                                                          |
|------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A total load of 2768 kgs was assembled on the steel roof truss assembly and the deflections were recorded at point 1 ,2 , 3 and 4. | Point 1 : 2.95 mm.<br>Point 2 : 5.30 mm.<br>Point 3 : 5.28 mm.<br>Point 4 : 2.455 mm.<br>The steel roof truss system withstood the total load of 2768 kgs without any collapse. |
| The load was then removed and permanent deflections were recorded.                                                                 | <u>Permanent deflections.</u><br>Point 1 : 0.59 mm .<br>Point 2 : 0.98 mm.<br>Point 3 : 0.84 mm.<br>Point 4 : 0.35 mm.                                                          |



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Submitted by : TONG YONG METAL SDN BHD.

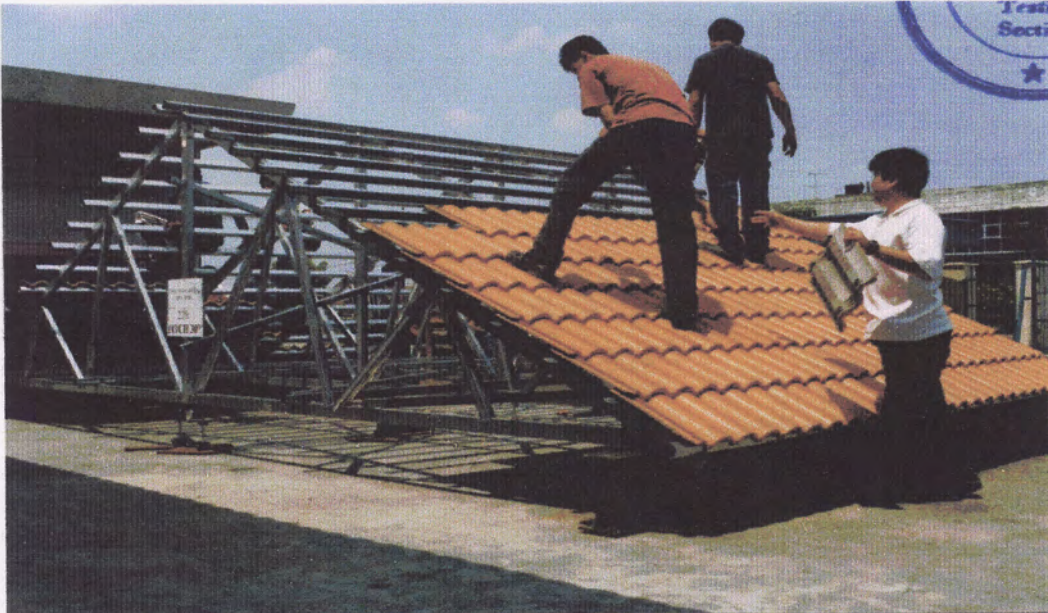
Sample : Steel Roof Truss.

Test location : Manufacturer's site.

Method of testing : Static load test .



Steel roof truss assembly.



A layer of roofing tiles (act as dead load) was assembled on the steel roof truss.

*Jihe*  
27 MAR 2000

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## Test results.

Submitted by : TONG YONG METAL SDN BHD.

Sample : Steel Roof Truss.

Test location : Manufacturer's site.

Method of testing : Static load test .



**Deflections were recorded after a layer of roofing tiles were fully assembled on the steel roof truss.**



**Deflections were recorded after two layers of roofing tiles were fully assembled on the steel roof truss.**



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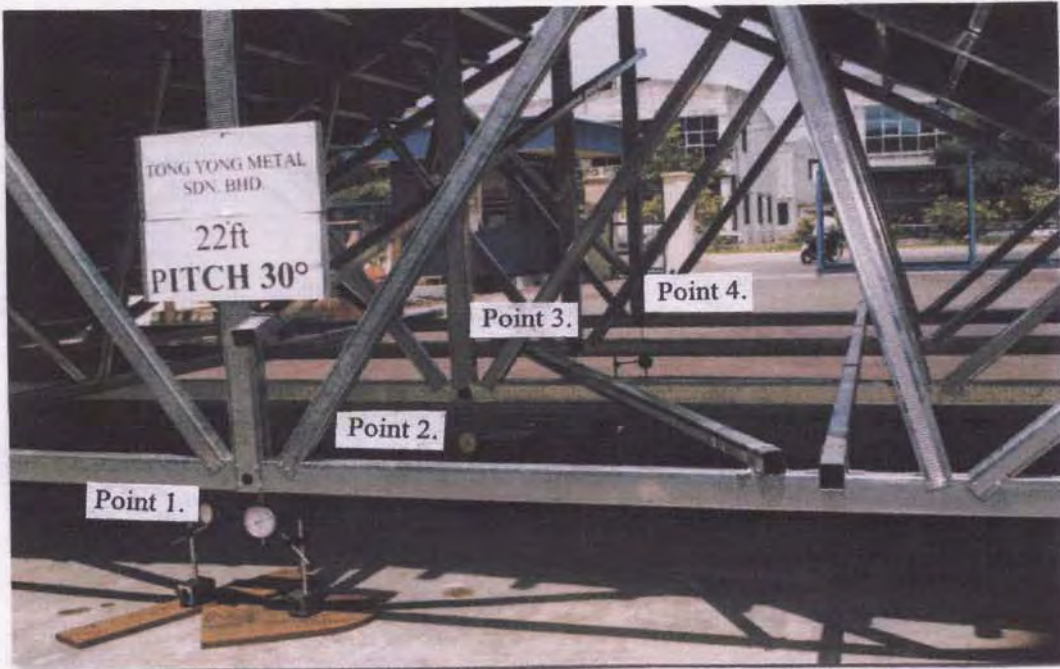
## Test results.

Submitted by : TONG YONG METAL SDN BHD.

Sample : Steel Roof Truss.

Test location : Manufacturer's site.

Method of testing : Static load test .



Points where deflections were recorded .



*Jihe*  
27 MAR 2000