

# AIT

## Asian Institute of Technology

Km. 42 Paholyothin Highway, Klong Luang, Pathumthani, Thailand 12120

P. O. Box 4 Klong Luang, Pathumthani 12120 Thailand. Tel. (66-2) 524-5527, 524-6427 Fax. (66-2) 524-5544

### STRUCTURAL ENGINEERING LABORATORY

### STRUCTURAL ENGINEERING FIELD OF STUDY

### SCHOOL OF ENGINEERING AND TECHNOLOGY

**TYPE OF TEST:** LOAD CARRYING CAPACITY VERIFICATION  
(PARALLEL TO CLAMPED BEAM)

**TEST SPECIMEN:** One (1) Aluminium "Stanchion Post " was given by the client.

**CLIENT:** TEMCO CO., LTD.

**DATE OF TEST:** March 16, 2018

**TEST RESULTS:**

Sheet No. 1 of 3

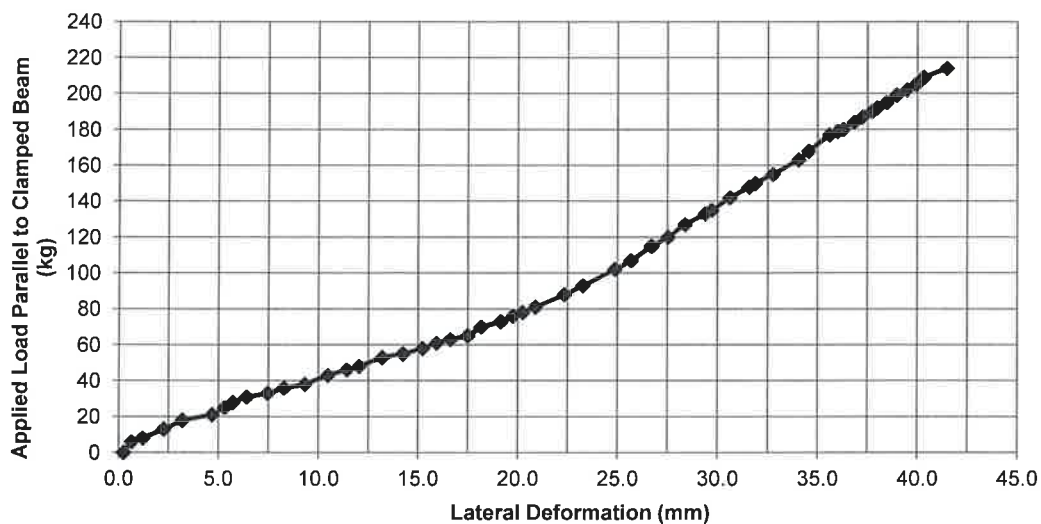


Figure 1 Relationship between applied load and lateral deformation of the specimen

**Note:** This report certifies the adequacy and representative character of the test sample(s) only.

TESTED BY:

**MR. SAMWAI SORNSRIDA**  
TECHNICIAN

CHECKED & APPROVED BY

**DR. ANAWAT CHOTESUWAN**  
SENIOR LABORATORY SUPERVISOR  
April 3, 2018

Case No.	Applied Load Parallel to Clamped Beam (kg)	Lateral Deformation (mm)	Remark
1	0.0	0.23	
	6.0	0.64	
	8.0	1.19	
	13.0	2.25	
	18.0	3.19	
	21.0	4.67	
	25.0	5.29	
	28.0	5.72	
	31.0	6.41	
	33.0	7.44	
	36.0	8.27	
	38.0	9.30	
	43.0	10.46	
	46.0	11.40	
	48.0	12.03	
	53.0	13.18	
	55.0	14.22	
	58.0	15.21	
	61.0	15.92	
	63.0	16.61	
	65.0	17.47	
	70.0	18.15	
	73.0	19.12	
	76.0	19.73	
	78.0	20.22	
	81.0	20.86	
	88.0	22.31	
	93.0	23.23	
	102.0	24.85	
	107.0	25.65	
	115.0	26.68	
	120.0	27.50	
	127.0	28.36	
	133.0	29.36	
	135.0	29.69	
	142.0	30.59	
	148.0	31.54	
	150.0	31.84	
	155.0	32.73	
	163.0	34.02	
	168.0	34.52	
	177.0	35.57	
	179.0	35.98	
	180.0	36.25	
	184.0	36.80	
	187.0	37.23	
	190.0	37.69	
	192.0	37.94	
	195.0	38.42	
	199.0	38.93	
	202.0	39.44	
	205.0	39.91	
	209.0	40.29	
	214.0	41.44	
	413.0	-	Displacement gauges were removed Damage occurred at the tested load



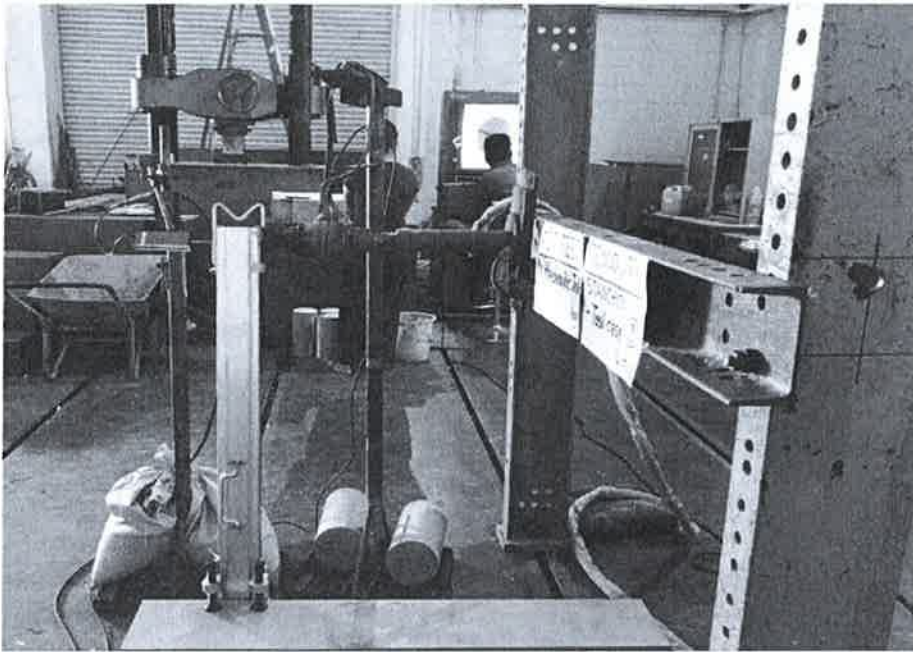


Figure 2 Lateral deformation parallel to clamped beam

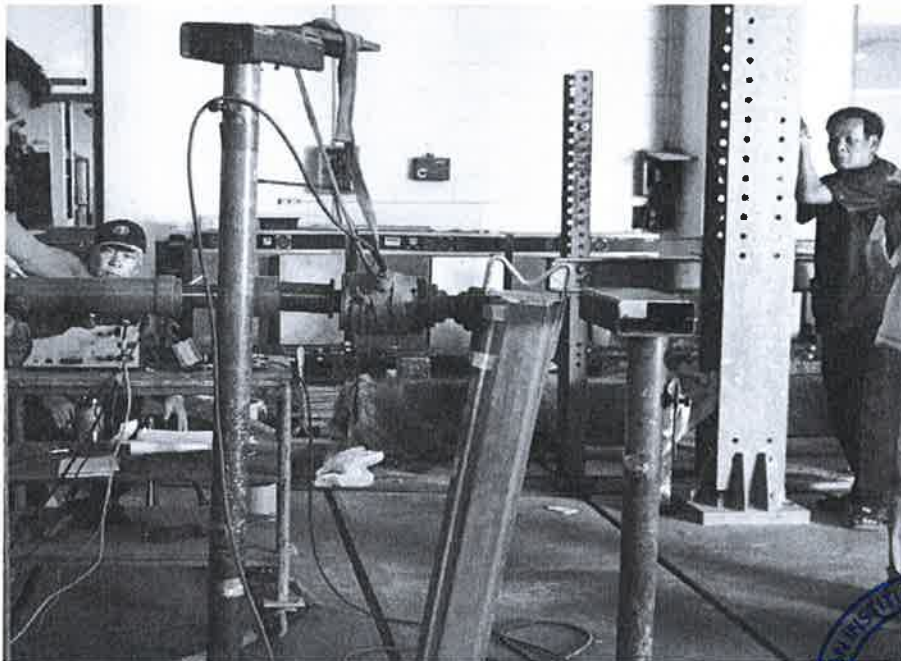


Figure 3 Damage occurred at the tested load 413 kg



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### STRUCTURAL ENGINEERING FIELD OF STUDY

### SCHOOL OF ENGINEERING AND TECHNOLOGY

**TYPE OF TEST:** LOAD CARRYING CAPACITY VERIFICATION BY HYDRAULIC  
(PERPENDICULAR TO CLAMPED BEAM)

**TEST SPECIMEN:** One (1) Aluminium "Stanchion Post " was given by the client.

**CLIENT:** TEMCO CO., LTD.

**DATE OF TEST:** March 16, 2018

**TEST RESULTS:**

Sheet No. 1 of 3

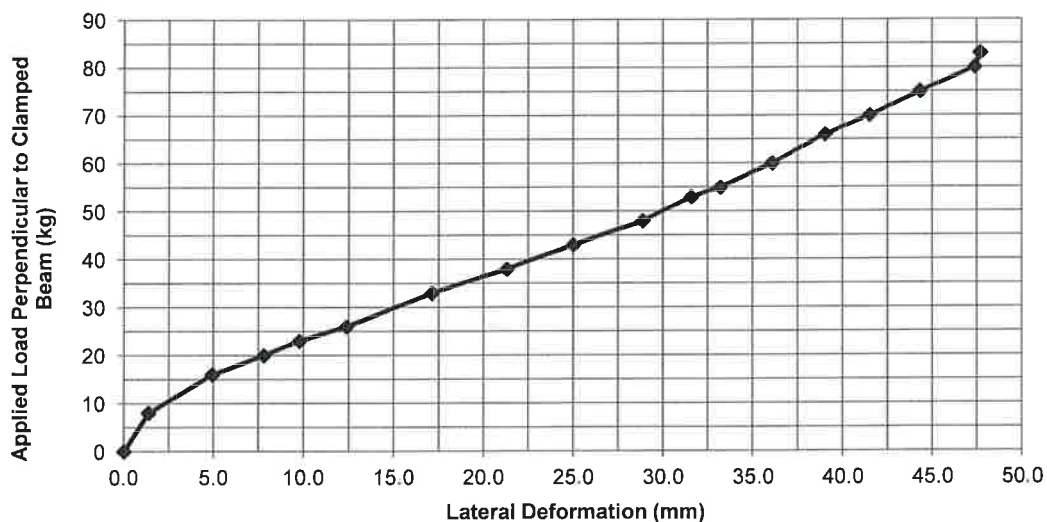


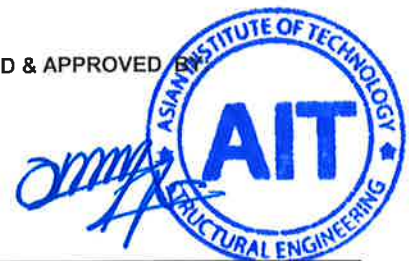
Figure 1 Relationship between applied load and lateral deformation of the specimen

**Note:** This report certifies the adequacy and representative character of the test sample(s) only.

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April 3, 2018

Case No.	Applied Load Perpendicular to Clamped Beam (kg)	Lateral Deformation (mm)	Remark
2	0.0	0.00	
	8.0	1.36	
	16.0	4.92	
	20.0	7.79	
	23.0	9.75	
	26.0	12.37	
	33.0	17.13	
	38.0	21.29	
	43.0	24.99	
	48.0	28.86	
	53.0	31.57	
	55.0	33.19	
	60.0	36.06	
	66.0	39.00	
	70.0	41.48	
	75.0	44.30	
	80.0	47.38	
	83.0	47.67	
	152.0	-	Displacement gauges were removed Damage occurred at the tested load



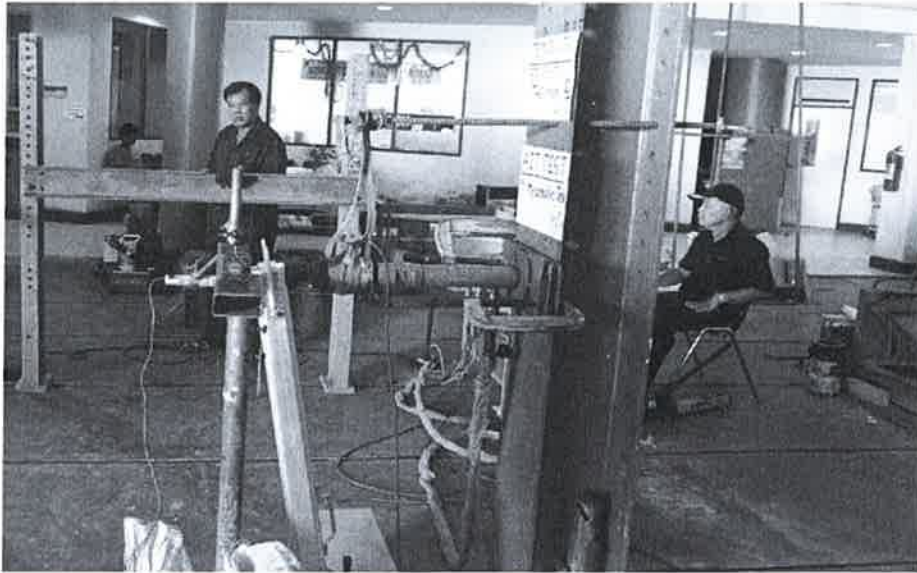


Figure 2 Lateral deformation perpendicular to clamped beam

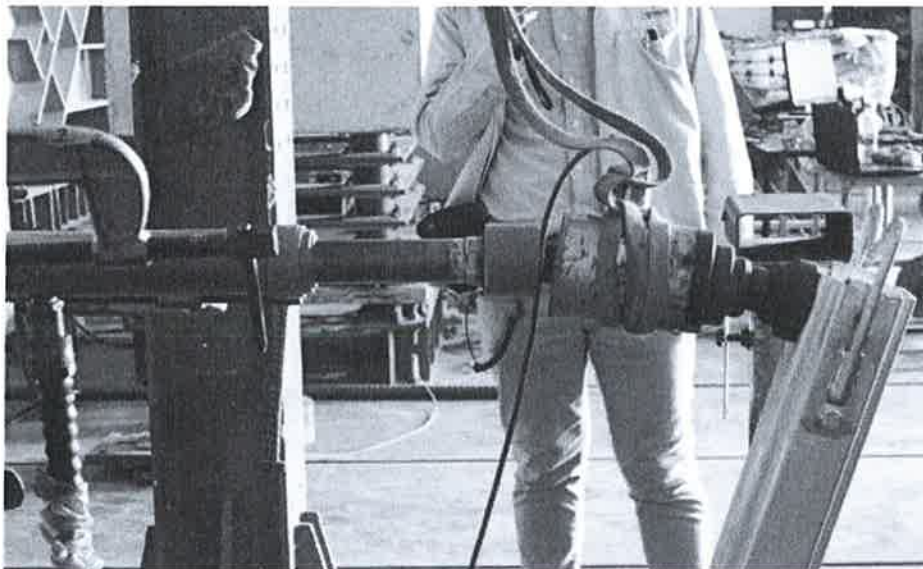


Figure 3 Damage occurred at the tested load 152 kg



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### STRUCTURAL ENGINEERING FIELD OF STUDY

### SCHOOL OF ENGINEERING AND TECHNOLOGY

**TYPE OF TEST:** LOAD CARRYING CAPACITY VERIFICATION BY COUNTERWEIGHT TEST  
(PARALLEL TO CLAMPED BEAM)

**TEST SPECIMEN:** One (1) Aluminium "Stanchion Post " was given by the client.

**CLIENT:** TEMCO CO., LTD.

**DATE OF TEST:** March 16, 2018

**TEST RESULTS:**

Sheet No. 1 of 2

Case No.	Type of Specimen	Maximum Load (kg)	Mode of Failure
1	Stanchion Post	250	Bending of hooking point

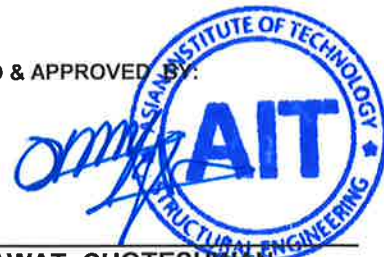
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TECHNICIAN

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SENIOR LABORATORY SUPERVISOR  
April 3, 2018



Figure 1 Lateral deformation parallel to clamped beam

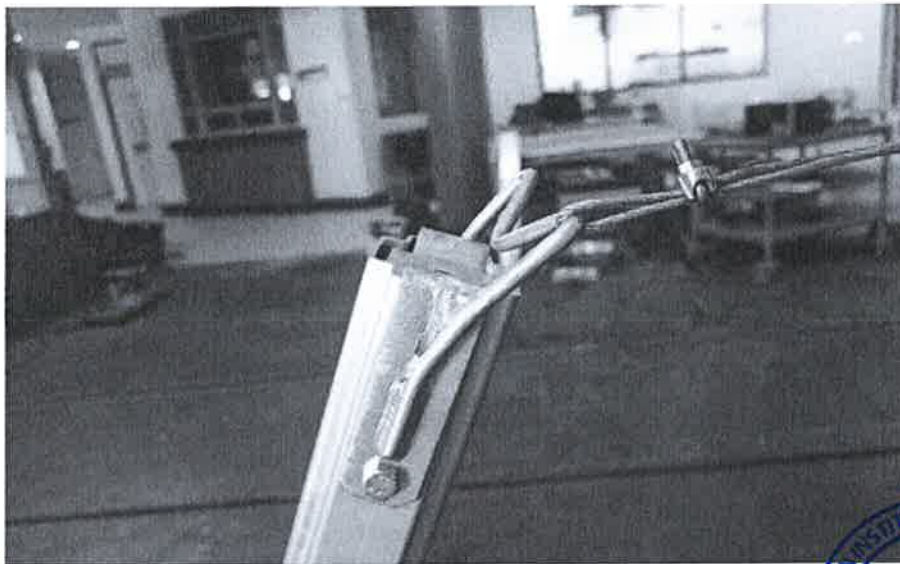


Figure 2 Damage occurred at the tested load 250 kg





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Sheet No. 1 of 2

Case No. No.	Type of Specimen	Maximum Load (kg)	Mode of Failure
2	Stanchion Post	280	Bending of hooking point

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**DR. ANAWAT CHOTESUWAN**  
SENIOR LABORATORY SUPERVISOR  
April 3, 2018

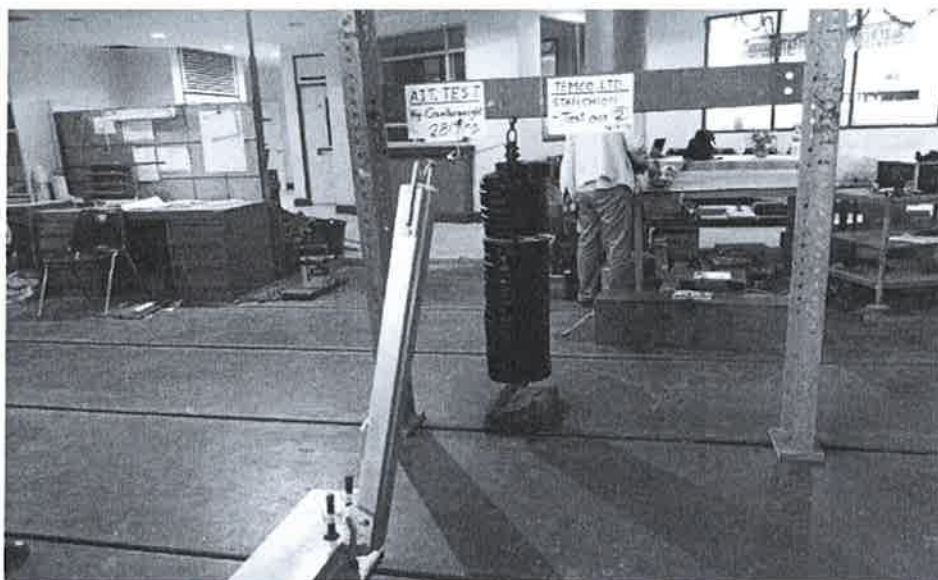


Figure 1 Lateral deformation perpendicular to clamped beam



Figure 2 Damage occurred at the tested load 280 kg

