

26.10.17



Unit 2, 15 Percy Street  
Auburn NSW 2144

**ATTENTION:** Ian Wood

**STRUCTURAL DESIGN CERTIFICATE FOR  
TEMPORARY STRUCTURES**

**PROJECT:** Aluminium Dropper Bar  
**STRUCTURE:** 2m x 1m Aluminium Dropper Bar and Clamp  
**LOCATION:** Multiple Locations (Non-Cyclonic)  
**DURATION:** October 2017—October 2018

We Event Engineering, being professional Structural Engineers within the meaning of the Building Code of Australia, confirm that we have been appointed as the engineers responsible for the Structural Certification of the above structure. We certify that we have reviewed the design as described herein and that this work was designed in accordance with the relevant provisions of the standard building codes, accepted engineering practice and principles and the design methods for *Temporary demountable structures* as specified in the *Guidance on procurement, design and use of temporary demountable structures* (Institution of Structural Engineers, 2017) subject to the design limitations listed overleaf.

**We advise that the maximum design 3 second wind gust speed (if deployed externally) for the above structure is at minimum 25m/s as per the minimum requirements set forth by AS1170.2:2011 (Clause 2.3). Should the wind speed measured on site approach this speed, the safety steps identified in this certificate must be implemented.**

We note that this certification is effective as of the dates specified for this installation and that further inspections will be required if the work is modified, leading to a final certification after which any modifications have been completed. This certificate shall not be construed as relieving any other party of their responsibilities, liabilities or contractual obligations. This certificate is applicable only for this installation and relies upon all other risk assessments, WHS safety requirements and job safety statements associated with this project.

**Alice Los**  
GradIEAust  
BEng (Civil & Architectural)  
**GRADUATE ENGINEER**

**Morgan Sheehy**  
MEng (Hons I) Tech Cert Eng (Civil)  
MIEAust CPEng NER (Structural) RPEQ  
Registered Building Practitioner VIC EC 41049  
(Civil Engineer)  
**SENIOR ENGINEER**

26.10.17

**1. REFERENCED STANDARDS**

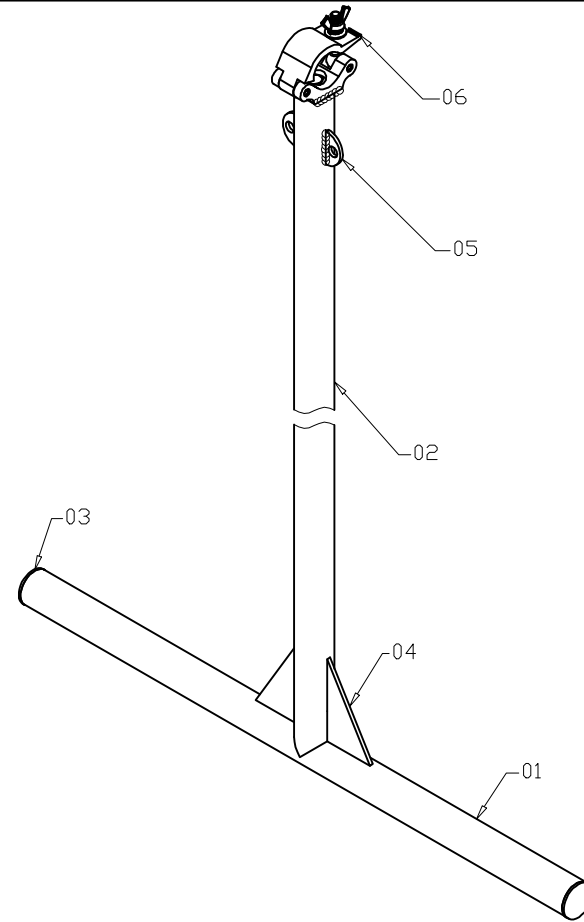
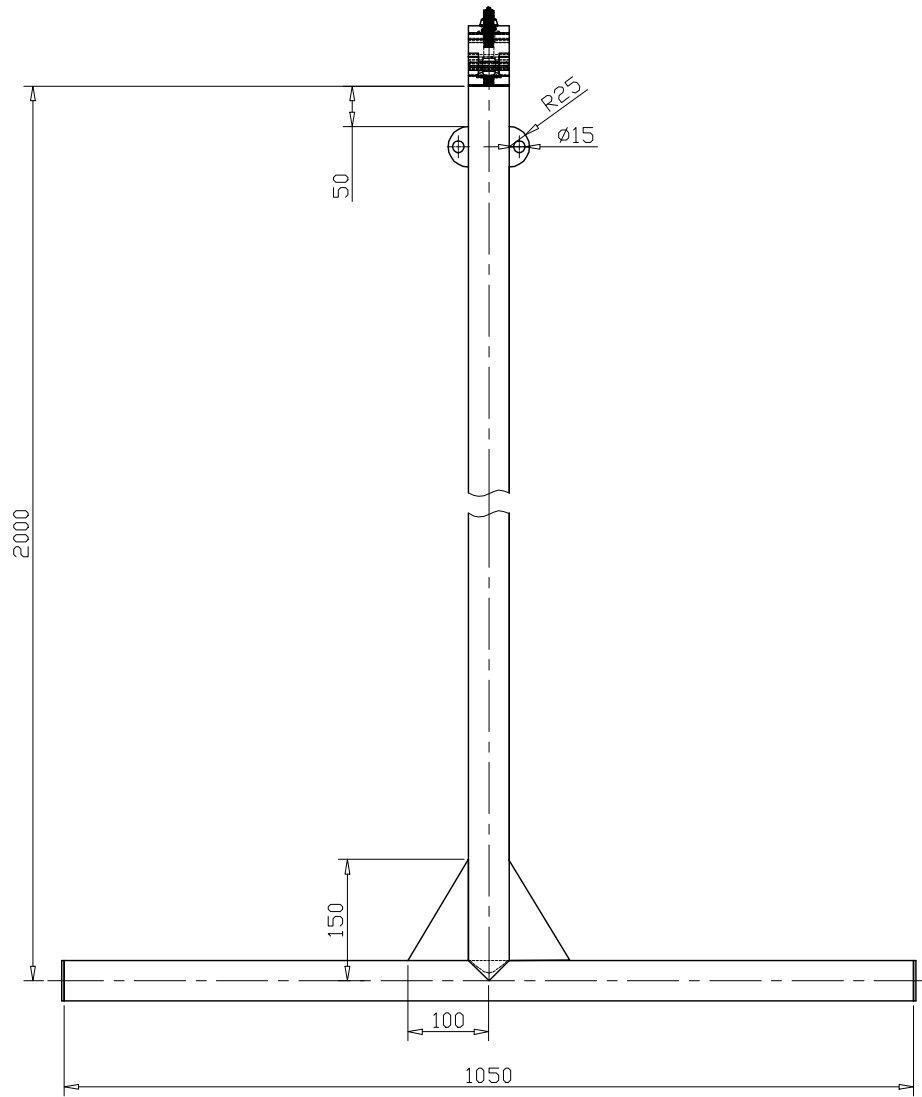
- 1.1. **ABCB:2015** Temporary Structures Standard
- 1.2. **AS1170.0:2002** General Principles
- 1.3. **AS1170.1:2002** Permanent, Imposed and Other Actions
- 1.4. **AS1170.2:2011** Wind Actions
- 1.5. **AS1664.1:1997** Aluminium Structures
- 1.6. **IStructE:2017** Temporary demountable structures

**2. ATTACHMENTS**

- 2.1. **Issued By:** Design Quintessence;
- 2.2. **Reference:** GYFZ-ZC80-2000 Model;  
GYFZ-ZC80-2000 Model Load Case 1;  
GYFZ-ZC80-2000 Model Load Case 2;  
GYFZ-ZC80-2000 Model Load Case 3;  
TUV NORD Certificate.

**3. DESIGN LIMITATIONS & REQUIREMENTS**

- 3.1. **Maximum Loading:**
  - 3.1.1. **Load Case 1:** 100kg Total;
  - 3.1.2. **Load Case 2:** 120kg Total;
  - 3.1.3. **Load Case 3:** 125kg Total;
- 3.2. **Fixing Attachment:** Top fixing to supporting infrastructure to be certified by others for the applied loads;
- 3.3. **Catenary Loading:** No catenaries to be fixed to structure;
- 3.4. **Wind Management Plan (If deployed externally):** The wind speed **must** be measured on site by an anemometer or the nearest Bureau of Meteorology in the event that no onsite anemometer exists. The following safety steps **must** be taken should the forecasted wind speed approach the design wind speed in the duration of the above project;
  - 3.4.1. If the wind speed approaches **18m/s**, personnel **must** go on standby to implement an evacuation and create an exclusion zone of 10m;
  - 3.4.2. If the wind speed approaches **20m/s**, all non-essential personnel **must** be evacuated and an exclusion zone created;
  - 3.4.3. If the wind speed approaches **25m/s**, all structures **must** be abandoned and all personnel moved within a permanent structure of importance level 2-4 as specified within the BCA.



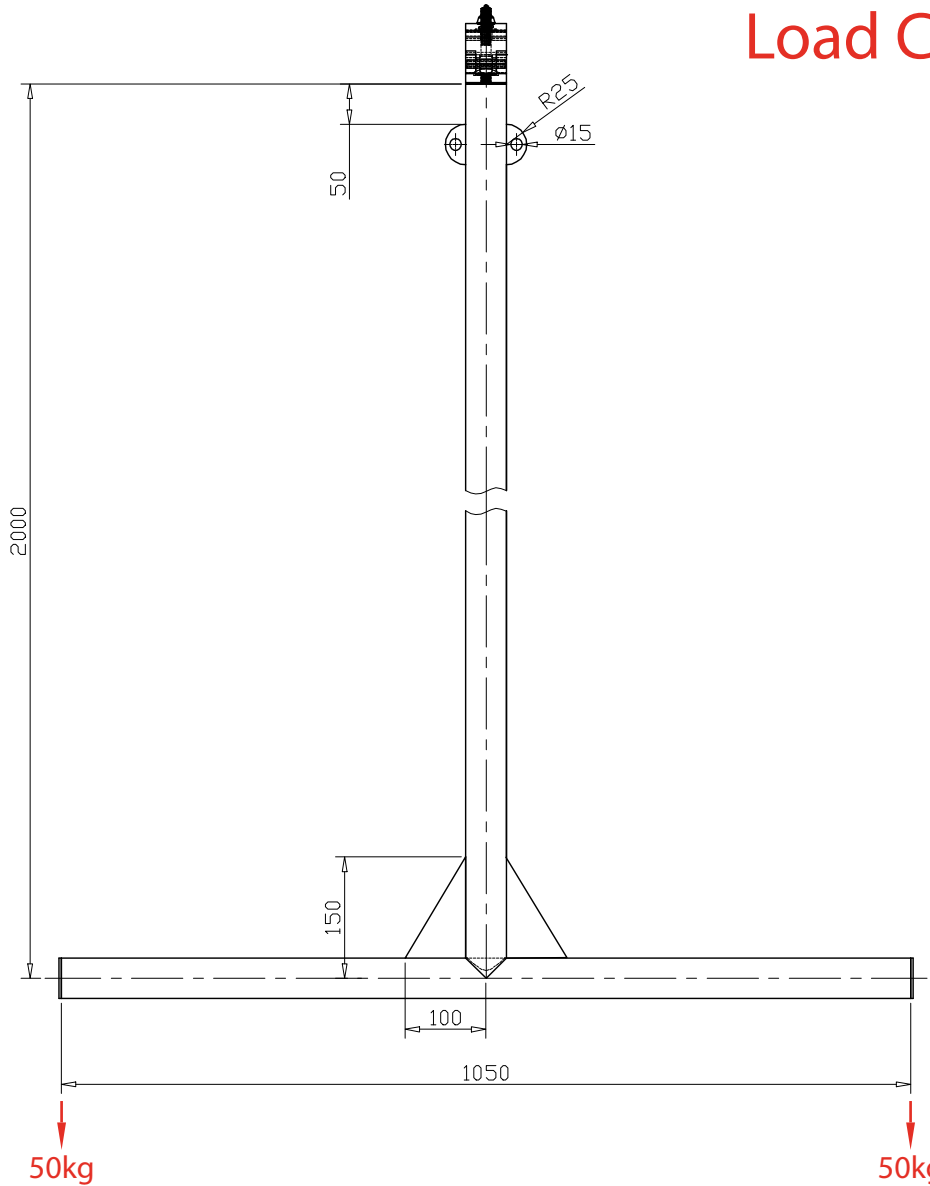
06	ST-823	#6061	T6	1
05	PJ-BQP117	#6061	T6	2
04	PJ-BQP104	#6061	T6	2
03	PJ-BQP004	#6061	T6	2
02	∅50*2.0t*2000mm	#6082	T6	1
01	∅50*2.0t*1050mm	#6082	T6	1
ND.	SPEC.	MATERIAL	FIS.	QTY.

	DRAWN	**	DRAW NO	GYFZ-ZC80-2000	2D/3D	edition	1	
	Specification	1050*2025mm	DESIGN	Xiang Yahui	DATE	10.11.10	CHECKED	APPROVED
	Weight	**kgs/pcs	UNITS	mm	Proofread			
	SURFACE	RAW	SCALE	1:8				

MARK	NAME	RETRIEVE CONTENTS	DATE

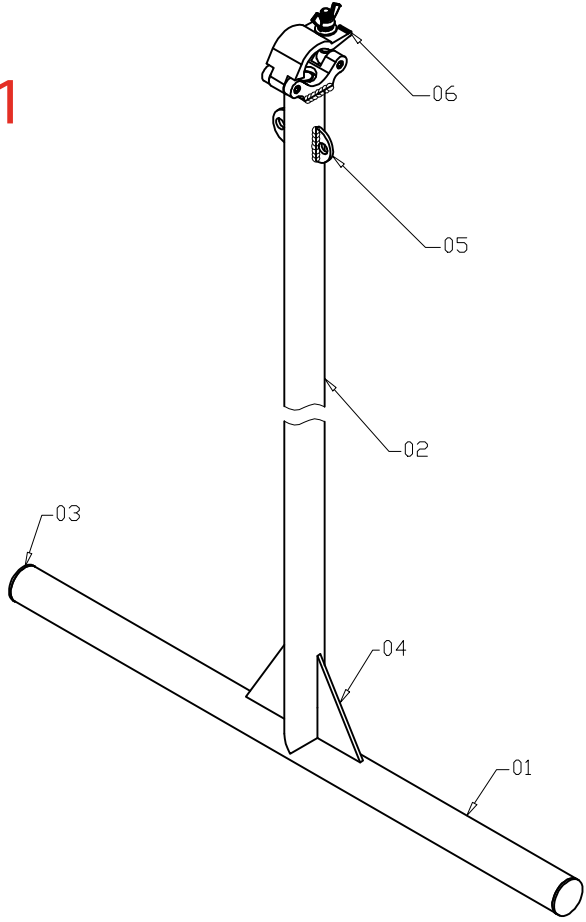


# Load Case 1



NOTE: Single point load or both point loads may be applied

MARK	NAME	RETRIEVE CONTENTS	DATE

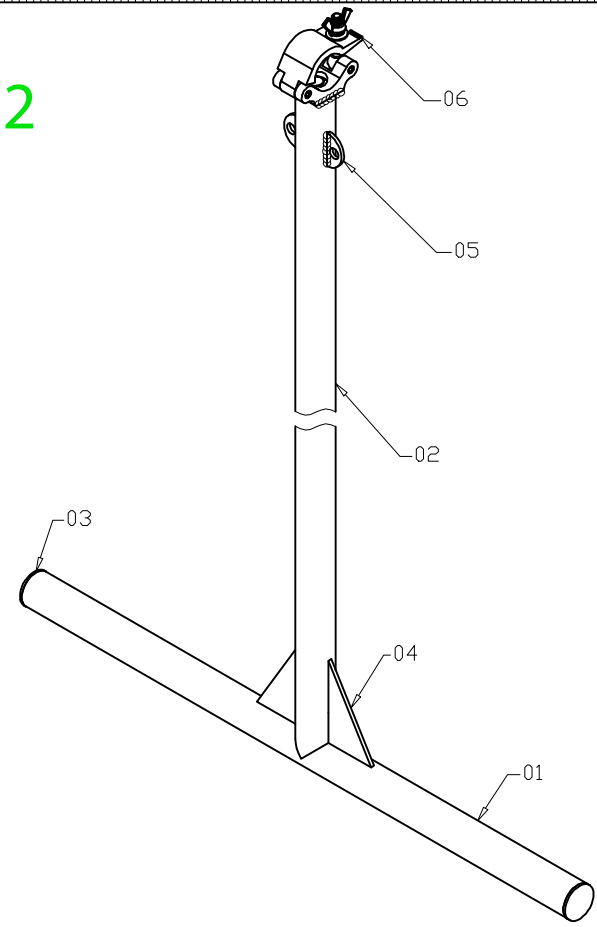
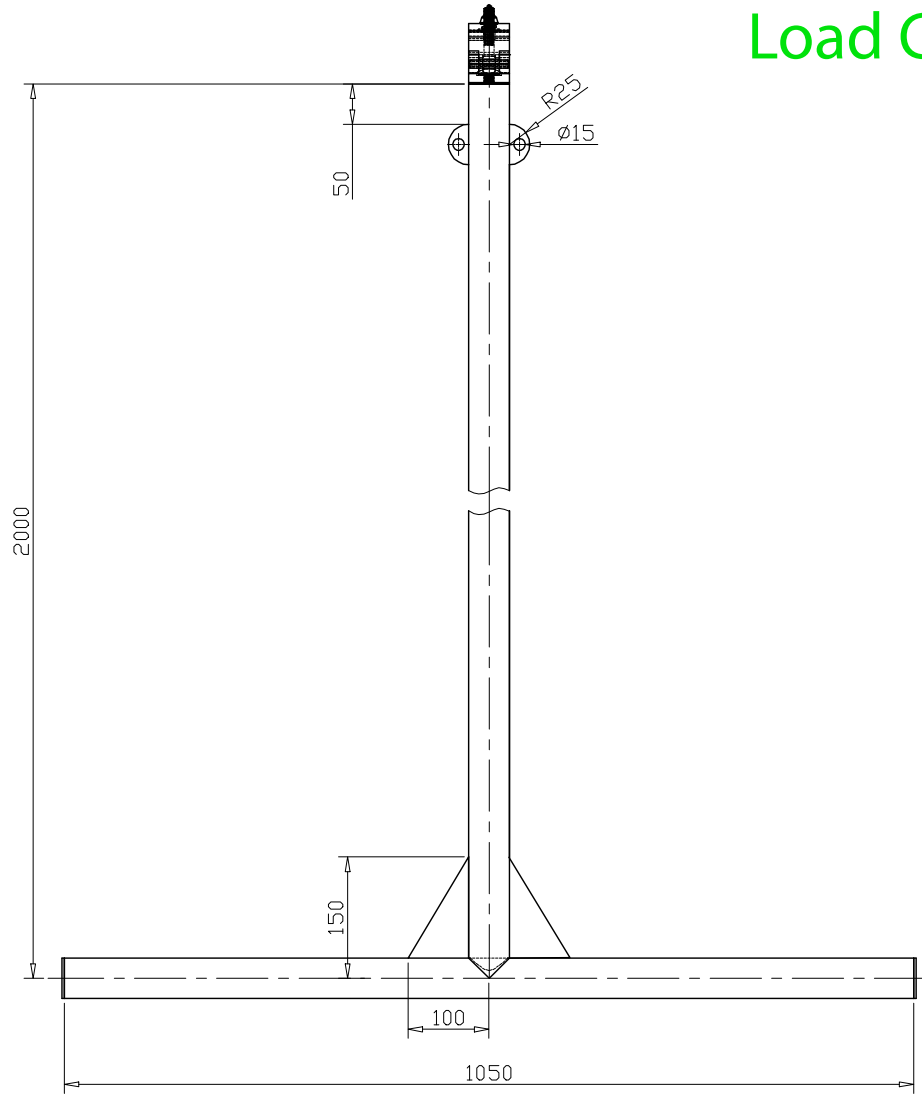


06	ST-823	#6061	T6	1
05	PJ-BQP117	#6061	T6	2
04	PJ-BQP104	#6061	T6	2
03	PJ-BQP004	#6061	T6	2
02	∅50*2.0t*2000mm	#6082	T6	1
01	∅50*2.0t*1050mm	#6082	T6	1
NO.	SPEC.	MATERIAL	FIS.	QTY.

	DRAWN	**	DRAW NO	GYFZ-ZC80-2000	2D/3D	edition	1	
	Specification	1050*2025mm	DESIGN	Xiang Yahui	DATE	10.11.10	CHECKED	APPROVED
	Weight	**kgs/pcs	UNITS	mm	Proofread			
SURFACE	RAW	SCALE	1:8					



# Load Case 2



NO.	SPEC.	MATERIAL	FIS.	QTY.
06	ST-823	#6061	T6	1
05	PJ-BQP117	#6061	T6	2
04	PJ-BQP104	#6061	T6	2
03	PJ-BQP004	#6061	T6	2
02	∅50*2.0t*2000mm	#6082	T6	1
01	∅50*2.0t*1050mm	#6082	T6	1

60kg

60kg

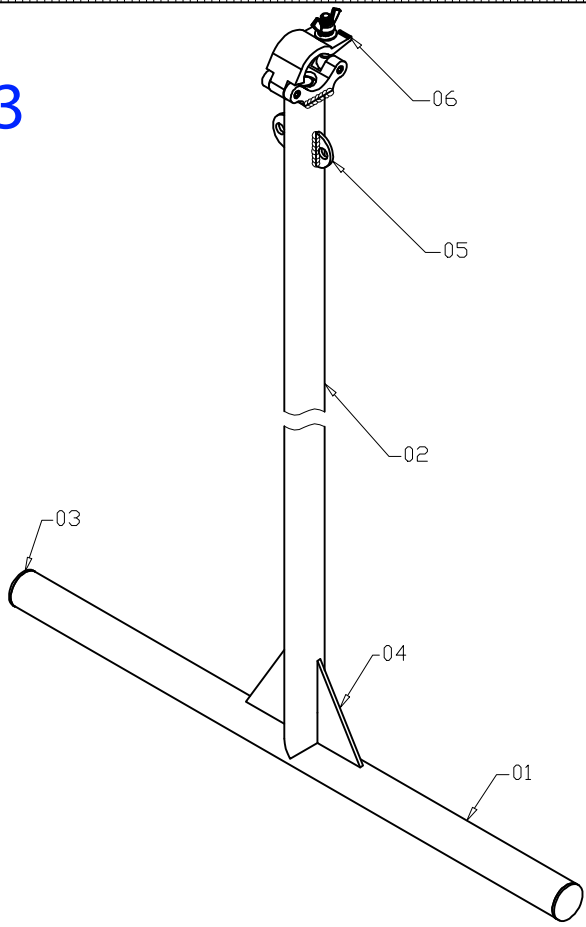
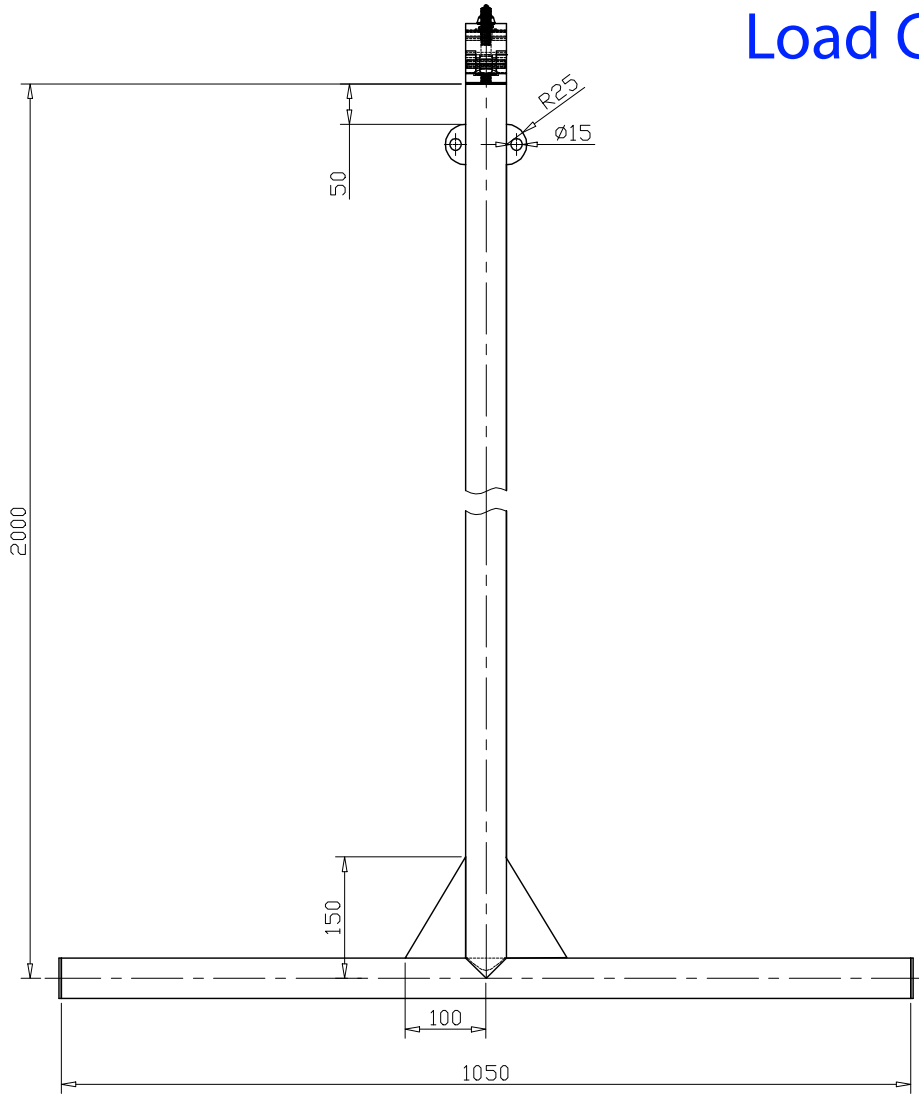
NOTE: Single point load or both point loads may be applied

MARK	NAME	RETRIEVE CONTENTS	DATE

DRAWN	**	DRAW NO	GYFZ-ZC80-2000	2D/3D	edition	1	
Specification	1050*2025mm	DESIGN	Xiang Yahui	DATE	10.11.10	CHECKED	APPROVED
Weight	**kgs/pcs	UNITS	mm	Proofread			
SURFACE	RAW	SCALE	1:8				



# Load Case 3



06	ST-823	#6061	T6	1
05	PJ-BQP117	#6061	T6	2
04	PJ-BQP104	#6061	T6	2
03	PJ-BQP004	#6061	T6	2
02	∅50*2.0t*2000mm	#6082	T6	1
01	∅50*2.0t*1050mm	#6082	T6	1
NO.	SPEC.	MATERIAL	FIS.	QTY.

	DRAWN	**	DRAW NO	GYFZ-ZC80-2000	2D/3D	edition	1	
	Specification	1050*2025mm	DESIGN	Xiang Yahui	DATE	10.11.10	CHECKED	APPROVED
	Weight	**kgs/pcs	UNITS	mm	Proofread			
SURFACE	RAW	SCALE	1:8					

NOTE: Single point load only

MARK	NAME	RETRIEVE CONTENTS	DATE



# ZERTIFIKAT CERTIFICATE

Hiermit wird bescheinigt, dass die Firma / *This certifies that the company*

**Taiwan Georgia Corp.**  
7F-2, No. 352, Wo-Hsing St.,  
000 Taipei, Taiwan

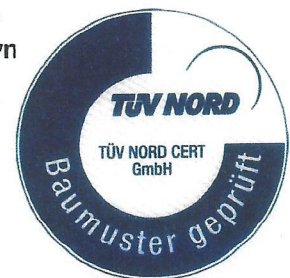
berechtigt ist, das unten genannte Produkt mit dem abgebildeten Zeichen zu kennzeichnen  
*is authorized to provide the product mentioned below with the mark as illustrated*

Fertigungsstätte  
*Manufacturing plant*

**Global Truss**  
**GYF Golden Yuan Fuh Bicycle Accessory Factory**  
**ShenZhen, Fu Rong Industrial Area, Sha Jing Town**  
**Bao An County, China**

Beschreibung des Produktes  
(Details s. Anlage 1)  
*Description of product*  
(Details see Annex 1)

**Schelle für Aluminium Traversen Typ: 5035**  
*Clamp for aluminium truss systems type: 5035*



Geprüft nach  
*Tested in accordance with*

**Prüfprogramm nach DIN EN 13814:2004**  
**Fliegende Bauten und Anlagen für Veranstaltungsorte und Vergnügungsparks**  
**Sicherheit**  
**5.3.6.2 Lastkombinationen - Grundkombinationen**  
  
*Test program according to DIN EN 13814:2004*  
*Fairground and amusement park machinery and structures*  
*Safety*  
*5.3.6.2 Load cases – basic combinations*

Registrier-Nr. / *Registered No.* 44 780 13013505  
Prüfbericht Nr. / *Test Report No.* 3511 4615  
Aktenzeichen / *File reference* 2.4-174/07

Gültigkeit / *Validity*  
von / *from* 2013-10-04  
bis / *until* 2018-10-03

  
TÜV NORD CERT GmbH  
Zertifizierungsstelle Konsumgüter

Essen, 2013-10-04

TÜV NORD CERT GmbH    Langemarckstraße 20    45141 Essen    [www.tuev-nord-cert.de](http://www.tuev-nord-cert.de)    [prodcert@tuev-nord.de](mailto:prodcert@tuev-nord.de)

Bitte beachten Sie auch die umseitigen Hinweise  
*Please also pay attention to the information stated overleaf*

# ANLAGE / ANNEX

Anlage 1, Seite 1 von 1  
Annex 1, page 1 of 1

**zum Zertifikat Registrier-Nr. / to Certificate Registration No. 44 780 13013505**

Produktbeschreibung: <i>Description of product:</i>	Schelle für Aluminium Traversen <i>Clamp for aluminium truss systems</i>
Typbezeichnung: <i>Type designation:</i>	Typ: 5035 <i>type: 5035</i>
Nennlast: <i>Nominal load:</i>	500 kg
Breite: <i>Width:</i>	50,0 mm
Innendurchmesser der Schelle: <i>Inner diameter of the clamp:</i>	50,8 mm
Material: <i>Material:</i>	Aluminium 6061 T6



TÜV NORD CERT GmbH  
Zertifizierungsstelle Konsumgüter

Essen, 2013-10-04



TÜV NORD CERT GmbH  
Langemarckstrasse 20  
45141 Essen  
Tel.: +49 201 8255120  
e-mail: prodcert@tuev-nord.de

## Technical Report

Testing Laboratory  
Product Safety

Report No. 35114615 dated 27.08.2013

Applicant: Taiwan Georgia Corp.  
7F-2, No. 352, Wo-Hsing St.,  
000 Taipei, Taiwan

Device under test: Clamp for an aluminium truss system type: 5035

Test principles: Test program according to DIN EN 13814:2004  
Fairground and amusement park machinery and structures  
Safety  
5.3.6.2 Load cases – basic combinations

Order no.: 8000416936

File no.: 2.4-174/07

Test engineer: Dipl.-Ing. Ulrich Braun

Testing period: 03.2013

Place of testing: TÜV NORD CERT GmbH  
Langemarckstr. 20, 45141 Essen

The report consists of 2 pages

**1. General**

**Technical Ratings:**

Nominal load:	500 kg
Clamp inner diameter:	50,8 mm
Width:	50,0 mm
Material:	Aluminium 6061 T6

Type of examination: TÜV NORD type approval

**2. Submitted files**

Certificate no. 44 780 07 349635 dated 14.11.2007

**3. Comments**

The above described aluminium clamp type 5035 is identical with the aluminium clamp system type 5035 described in the type approval certificate no. 44 780 07 349635 dated 14.11.2007. The retesting of the clamp has become necessary because the type approval certificate no. 44 780 07 349635 did expire at 14.11.2012. Also the DIN 4113 1-3 did expire and has been replaced by the EN 1090 parts 1-3 , EN 13814 and EUROCODE 9.

**4. Test result**

The referencend units are in compliance with the above requirements.



Albert Brinkmann



Ulrich Braun