

# Test Certificate

Certificate No.: 1611-075-218 A11-1

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We hereby certify that the item in the following was witnessed by our Inspector.

Manufacturer: LISHUI OUYI VALVE CO., LTD.  
 Address: #799-1 Jinniu Street, Bihu Industrial Zone Lishui, Zhejiang People's Republic of China  
 Place of test: Wenzhou City, Zhejiang Province, China Date of test: June 21<sup>st</sup>, 2016  
 Description: Ball Valve

Valve type	2" ANSI 150 TRUNNION BALL VALVE
Drawing No.	OY20160615

**Scope of Inspection and Testing:**

- 1) Witness the fire test in accordance with ISO 10497:2010/ API Standard 607, 6th edition, 2010

**Result(s) of Inspection and Testing:**

Fire test was carried out in accordance with API 607, 6th edition, 2010 at the presence of DNV.GL inspector and all requirements of specification were met.

**Qualification of other valve size and pressure ratings:**

Conform to  
 Valves with the same type, size: 2"; 2-1/2"; 3" and 4"  
 Pressure Ratings: Class 150LB; Class 300LB.

**Associated Documents:**

1. ANNEX to Test Certificate;
2. Valve Fire Tested by Wenzhou Yongjia Quality and Technology Supervision Bureau Inspection Institute.

Stamping



*Andy Chen*

Inspection Senior Engineer to DNV.GL  
 (Suzhou Office Leader)

Place and date  
Shanghai, China, 2016-6-21,

ANNEX TO VALVE FIRE TEST CERTIFICATE

Certificate No. : 1611-075-218 A11-2

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**Client/Manufacturer:** LISHUI OUYI VALVE CO., LTD.  
 #799-1 Jinniu Street, Bihu Industrial Zone Lishui, Zhejiang People's  
 Republic of China

**Fire test Specification:** ISO 10497:2010/ API Standard 607.6<sup>th</sup> Edition, 2010.

**Date of Test:** 2016-6-21

**Particulars of Valve:** 2" ANSI 150

Size & Class:	2" ANSI 150
Type:	TRUNNION BALL VALVE
Fig No:	OY20160615
Drawing No.	OY20160615

**Valve Materials:**

Body:	ASTM A105
Stem:	ASTM A105+ENP
Ball	ASTM A105+ENP
Seats:	PTFE
Oring:	VITON
Gasket:	Graphite+SS304

**Result:**

The valve fire test complies with the standard requirement.

Stamping

*Andy Chen*

Inspection Senior Engineer to DNV.GL  
 (Suzhou Office Leader)



Place /Date: 2016-6-21

ANNEX TO VALVE FIRE TEST CERTIFICATE

Certificate No. : 1611-075-218 A11-3

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**Valve Inspection & Testing**

The fire-tested valve has passed all the requirements of production pressure test to API 607 sixth Edition, Sept. 2010 and ISO 10497 third Edition, Feb. 2010

**Associated Documentation:**

1. Test Pressure during burn and Cool down: 1.5 Mpa
2. Temperature recorded 2 minutes after beginning and the remaining time throughout duration of test, with individual records for each thermocouple:

Colorimeter No.	Location placed	Temperature record	Remark
Thermocouple 1#	Bottom of body	2 minutes after beginning: 815.5°C Balance duration time: 808°C-858°C	Satisfactory
Thermocouple 2#	Flank of body	2 minutes after beginning: 820.5°C Balance duration time: 810°C-860°C	Satisfactory
Calorimeter cube 1#	Stem	Above 650°C 14.5 minutes	Satisfactory
Calorimeter cube 2#	Bottom of body	Above 650°C 15 minutes	Satisfactory

3. Through-seat Leakage during Burn: 65 ml/min
4. External Leakage during Burn and cool down: 35 ml/min
5. Time required for valve to cool to 100 deg C: 5 min
6. Through-seat Leakage (low pressure test): 16 ml/min
7. Valve was operated to fully open position Yes
8. External leakage in open position 14 ml/min
9. Valve is bi-directional and passed in both directions: Yes

Results: The tested valve Complies with international standards as mentioned in this certificate.

Stamping

*Andy Chen*

Inspection Senior Engineer to DNV.GL  
(Suzhou Office Leader)



Place /Date: 2016-6-21

# Test Certificate

Certificate No.: 1611-075-218 A12-1

Page 1 of 1

We hereby certify that the item in the following was witnessed by our Inspector.

Manufacturer: LISHUI OUYI VALVE CO., LTD.

Address: #799-1 Jinniu Street, Bihu Industrial Zone Lishui, Zhejiang People's Republic of China

Place of test: Wenzhou City, Zhejiang Province, China Date of test: June 21<sup>st</sup>, 2016

Description: Ball Valve

Valve type	2" ANSI 600 TRUNNION BALL VALVE
Drawing No.	OY20160616

**Scope of Inspection and Testing:**

- 1) Witness the fire test in accordance with ISO 10497:2010/ API Standard 607, 6th edition, 2010

**Result(s) of Inspection and Testing:**

Fire test was carried out in accordance with API 607, 6th edition, 2010 at the presence of DNV.GL inspector and all requirements of specification were met.

**Qualification of other valve size and pressure ratings:**

**Conform to**

Valves with the same type, size: 2"; 2-1/2"; 3" and 4"

Pressure Ratings: Class 600LB; Class 800LB; Class 900LB.

**Associated Documents:**

1. ANNEX to Test Certificate;
2. Valve Fire Tested by Wenzhou Yongjia Quality and Technology Supervision Bureau Inspection Institute.

Stamping

Place and date  
Shanghai, China, 2016-6-21,



*Andy Chen*

Inspection Senior Engineer to DNV.GL  
(Suzhou Office Leader)

ANNEX TO VALVE FIRE TEST CERTIFICATE

Certificate No. : 1611-075-218 A12-2

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**Client/Manufacturer:** LISHUI OUYI VALVE CO., LTD.  
 #799-1 Jinniu Street, Bihu Industrial Zone Lishui, Zhejiang People's  
 Republic of China

**Fire test Specification:** ISO 10497:2010/ API Standard 607.6<sup>th</sup> Edition, 2010.

**Date of Test:** 2016-6-21

**Particulars of Valve:** 2" ANSI 600

Size & Class:	2" ANSI 600
Type:	TRUNNION BALL VALVE
Fig No:	OY20160616
Drawing No.	OY20160616

**Valve Materials:**

Body:	ASTM A105
Stem:	ASTM A105+ENP
Ball	ASTM A105+ENP
Seats:	PEEK
Oring:	VITON
Gasket:	Graphite+SS304

**Result:**

The valve fire test complies with the standard requirement.

Stamping

*Andy Chen*

Inspection Senior Engineer to DNV·GL  
 (Suzhou Office Leader)



Place /Date: 2016-6-21