

# Test Certificate

Certificate No.: 1611-075-218 A26-1

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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 29<sup>th</sup>, 2016

Description: Globe Valve

|            |                            |
|------------|----------------------------|
| Valve type | 2" ANSI 150<br>GLOBE VALVE |
|------------|----------------------------|

|             |            |
|-------------|------------|
| Drawing No. | OY20160605 |
|-------------|------------|

## Scope of Inspection and Testing:

- 1) Witness the fire test in accordance with API STD 6FA 3<sup>rd</sup> Edition, 1999, REAFFIRMED 2011

## Result(s) of Inspection and Testing:

Fire test was carried out in accordance with API STD 6FA 3<sup>rd</sup> Edition, 1999, REAFFIRMED 2011 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

Place and date

Shanghai, China, 2016-6-29,



*Andy Chen*

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



ANNEX TO VALVE FIRE TEST CERTIFICATE

Certificate No. : 1611-075-218 A26-2

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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:** API STD 6FA 3<sup>rd</sup> Edition, 1999, REAFFIRMED 2011

**Date of Test:** 2016-6-29

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

|               |             |
|---------------|-------------|
| Size & Class: | 2" ANSI 150 |
| Type:         | GLOBE VALVE |
| Fig No:       | OY20160605  |
| Drawing No.   | OY20160605  |

**Valve Materials:**

|         |                    |
|---------|--------------------|
| Body:   | ASTM A216 WCB      |
| Stem:   | ASTM A182 F6a      |
| Disc    | ASTM A216 WCB+13Cr |
| Seats:  | ASTM A182 F6a      |
| Gasket: | SS304+Graphite     |

**Result:**

The valve fire test complies with the standard requirement.

Stamping

*Andy Chen*

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



Place /Date: 2016-6-29



ANNEX TO VALVE FIRE TEST CERTIFICATE

Certificate No. : 1611-075-218 A26-3

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**Valve Inspection & Testing**

The fire-tested valve has passed all the requirements of production pressure test to API STD 6FA 3<sup>rd</sup> Edition, 1999, REAFFIRMED 2011

**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<br>Balance duration time: 808°C-858°C | Satisfactory |
| Thermocouple 2#     | Flank of body   | 2 minutes after beginning: 820.5°C<br>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: 50 ml/min
4. External Leakage during Burn and cool down: 20 ml/min
5. Time required for valve to cool to 100 deg C: 5 min
6. Through-seat Leakage (low pressure test): 10 ml/min
7. Valve was operated to fully open position Yes
8. External leakage in open position 5 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: 2016-6-29



# Test Certificate

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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 29<sup>th</sup>, 2016  
 Description: Globe Valve

|             |                            |
|-------------|----------------------------|
| Valve type  | 8" ANSI 150<br>GLOBE VALVE |
| Drawing No. | OY20160606                 |

**Scope of Inspection and Testing:**

- 1) Witness the fire test in accordance with API STD 6FA 3<sup>rd</sup> Edition, 1999, REAFFIRMED 2011

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

Fire test was carried out in accordance with API STD 6FA 3<sup>rd</sup> Edition, 1999, REAFFIRMED 2011 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: 8"; 10"; 12"; 14"; and 16".  
 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

Place and date  
Shanghai, China, 2016-6-29,



*Andy Chen*

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



ANNEX TO VALVE FIRE TEST CERTIFICATE

Certificate No. : 1611-075-218 A27-2

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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:** API STD 6FA 3<sup>rd</sup> Edition, 1999, REAFFIRMED 2011

**Date of Test:** 2016-6-29

**Particulars of Valve:** 8" ANSI 150

|               |             |
|---------------|-------------|
| Size & Class: | 8" ANSI 150 |
| Type:         | GLOBE VALVE |
| Fig No:       | OY20160606  |
| Drawing No.   | OY20160606  |

**Valve Materials:**

|         |                    |
|---------|--------------------|
| Body:   | ASTM A216 WCB      |
| Stem:   | ASTM A182 F6a      |
| Disc    | ASTM A216 WCB+13Cr |
| Seats:  | ASTM A182 F6a      |
| Gasket: | SS304+Graphite     |

**Result:**

The valve fire test complies with the standard requirement.

Stamping

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



Place /Date: 2016-6-29