

Fugro Development Centre 5 Lok Yi Street, Tai Lam Tuen Mun, NT Hong Kong

Client Ref.

.

Report No.

202519PC200090(3)

Page 1 of 5

# REPORT ON TESTING OF FLOAT OPERATED GUNMETAL VALVE

Information Sup	oplied by Clier	<u>nt</u>	Al	-	_	
	Maria de					
ry						
36		:		:		4
1	(				.,,-	
PC200000/4	80mm	80mm				
PC200090/4	(3")	(3")	90	130		Pass



Fugro Development Centre 5 Lok Yi Street, Tai Lam Tuen Mun, NT Hong Kong

Page 2 of 5

Client Ref. : --

Report No. : 202519PC200090(3)

## 2. HYDRAULIC PRESSURE TEST

(BS 1212 : Part 1 : 1990, cluase 24)

120 121211 01011				
Lab Sample 1.D.	Hydraulic pressure test			
PC200090/4	Test Pressure (bar)	Duration (min.)	Observation	Remark
	20	15	No leakage was detected during the test	Pass
BS Requirement	20	15 <sup>+1</sup> <sub>- 0</sub>	No leakage or sweating	

## 3. SHUT-OFF TEST

(BS 1212 : Part 1 : 1990, cluase 24)

Lab Sample I.D.	. Shut-off test				
		Test Pressure (bar)	Duration (sec.)	Observation	Remark
PC200090/4	1st test	3	60	No leakage was detected during the test	Pass
	2 nd test	7			
	3 rd test	14			
BS Requirement	for low pressure valve	3		No leakage	
	for medium pressure valve	7			
	for high pressure valve	14			



Fugro Development Centre 5 Lok Yi Street, Tai Lam Tuen Mun, NT Hong Kong Page 3 of 5

Client Ref.

: --

Report No. : 202519PC200090(3)

# 4. Chemical Composition (Body)

Testing items	Results	Specification according to BS EN 1982 : 2008 Grade CC491K castings
1. Copper (Cu) content, %	86.1	83.0 – 87.0 <sup>1)</sup>
2. Nickel (Ni) content, %	0.27	2.0 max.
3. Phosphorus (P) content, %	<0.03	0.10 max.
4. Lead (Pb) content, %	4.8	4.0 – 6.0
5. Tin (Sn) content, %	4.5	4.0 – 6.0
6. Zinc (Zn) content, %	4.5	4.0 - 6.0
7. Aluminium (Al) content, %	<0.01	0.01 max.
8. Iron (Fe) content, %	<0.04	0.3 max.
9. Sulfur (S) content, %	<0.04	0.10 max.
10. Antimony (Sb) content, %	0.04	0.25 max.
11. Silicon (Si) content, %	<0.01	0.01 max.

Remark: 1) Including nickel

Note: Based on the test results of the submitted sample, it is found that the sample complies with the chemical composition specification of BS EN 1982 : 2008 Grade CC491K castings. The chemical composition results are obtained from our test report no. 20259EN201532

## 5. Chemical Composition (Piston)

Testing items	Results	Specification according to BS EN 12164 : 2016 Grade CW617N			
1. Aluminum (Al) content, %	<0.01	0.05 max.			
2. Copper (Cu) content, %	58.2	57.0 - 59.0			
3. Nickel (Ni) content, %	<0.08	0.3 max.			
4. Lead (Pb) content, %	1.8	1.6 – 2.5			
5. Tin (Sn) content, %	0.13	0.3 max.			
6. Zinc (Zn) content, %	39.7	Remainder			
7. Iron (Fe) content, %	0.13	0.3 max.			
Hence, others content, %	<0.2	0.2 max.			

Note: Based on the test results of the submitted sample, it is found that the sample complies with the chemical composition specification of BS EN 12164 : 2016 Grade CW617N.

The chemical composition results are obtained from our test report no. 202519EN201714.



Fugro Development Centre 5 Lok Yi Street, Tai Lam Tuen Mun, NT Hong Kong Page 4 of 5

Client Ref.

Report No. 202519PC200090(3)

## 6. Chemical Composition (Lever)

Testing items	Results	Specification according to BS EN 1982 : 2008 Grade CC491K castings
1. Copper (Cu) content, %	86.4	83.0 – 87.0 <sup>1)</sup>
2. Nickel (Ni) content, %	0.27	2.0 max.
3. Phosphorus (P) content, %	<0.03	0.10 max.
4. Lead (Pb) content, %	4.5	4.0 – 6.0
5. Tin (Sn) content, %	4.6	4.0 – 6.0
6. Zinc (Zn) content, %	4.3	4.0 – 6.0
7. Aluminium (Al) content, %	<0.01	0.01 max.
8. Iron (Fe) content, %	<0.04	0.3 max.
9. Sulfur (S) content, %	<0.04	0.10 max,
10. Antimony (Sb) content, %	0.05	0.25 max.
11. Silicon (Si) content, %	<0.01	0.01 max.
Damantu 1) tarata tara at a a		

Remark: ' Including nickel

Note: Based on the test results of the submitted sample, it is found that the sample complies with the chemical composition specification of BS EN 1982 : 2008 Grade CC491K castings. The chemical composition results are obtained from our test report no. 20259EN201532



**Dimensions Pass** 

Checked by ' 7 1 IIII 2020 Certified by

Date:

Ng Shu Shing Chris



Fugro Development Centre 5 Lok Yi Street, Tai Lam Tuen Mun, NT Hong Kong

Page 5 of

Client Ref. : --

Report No. : 202519PC200090(3)



**Test Sample** 



**Test Sample** 



**Body Marking** 

\*\* End of Report \*\*