



## WELDER APPROVAL TEST CERTIFICATE IN ACCORDANCE WITH EN ISO 9606-1 : 2017



### Additional requirements :

DESIGNATION (A) EN ISO 9606-1 136 P FW FM1 P t 25/25 PC ml

WPS reference N° : PWPS-FCAW-001 Rev. 01

Sample identification : EN-017

Welder :  
Name : Shiwei Yu  
First name : Shiwei  
Date of birth : 06/16/1986  
Place of birth : Puyang County, Henan Province  
Employer : Zhejiang Jiangnan Steel Structure Co., Ltd  
Job Knowledge : ☐ Acceptable  
Supplementary Fillet Weld Test : ☐ Performed and acceptable

Identification : 410928198606162417  
Identification method : National ID Card

Welder number : JNGG-W017  
☒ Not tested  
☒ Not performed



| Qualification variables                               | Associated standard                       | Weld test details                              |                          |                          | Range of qualification (1)                                                               |
|-------------------------------------------------------|-------------------------------------------|------------------------------------------------|--------------------------|--------------------------|------------------------------------------------------------------------------------------|
|                                                       |                                           | Assembly 1 <input checked="" type="checkbox"/> |                          |                          |                                                                                          |
| Welding process(es)                                   | EN ISO 4063                               | Process                                        | (A)                      | 136                      | 136                                                                                      |
| Transfer mode                                         | EN ISO 4063                               | Process                                        | (A)                      | /                        | /                                                                                        |
| Current type and polarity                             |                                           | (A)                                            | DC                       | (+)                      | Non essential variable                                                                   |
| Product type : Plate (P) or pipe (T)                  |                                           |                                                | P                        |                          | P + T                                                                                    |
| Type of weld                                          |                                           |                                                | FW                       |                          | FW                                                                                       |
| Assemblage type : Branch joint                        |                                           | P1a                                            | P1b                      | P1c                      | /                                                                                        |
| Weld details: gouging / backing                       | (A)                                       | <input type="checkbox"/>                       | <input type="checkbox"/> | <input type="checkbox"/> | sl, ml                                                                                   |
| Parent metal group(s)                                 | CEN ISO TR 15608                          |                                                | 1                        | /                        | (A) : Groups 1 to 11 CEN ISO/TR 15608                                                    |
| Filler metal type and designation See Note 1 overleaf | (A)                                       | P                                              | T 42 2 P C 1 H 5         |                          | R,P,V,W,Y,Z                                                                              |
| Filler material(s) group                              | (A)                                       |                                                | FM1                      |                          | FM1 - FM2                                                                                |
| Shielding gas or flux                                 | EN ISO 14174 (flux)<br>EN ISO 14175 (gaz) | (A)                                            | C1                       |                          | Non essential variable                                                                   |
| Auxiliaries                                           | (A)                                       |                                                | /                        |                          | Non essential variable                                                                   |
| Parent metal Thickness (mm)                           | min<br>max                                |                                                | 25<br>25                 |                          | ≥ 3<br>≥ 3                                                                               |
| Deposited metal thickness (mm)                        | (A)                                       |                                                | /                        |                          | /                                                                                        |
| Outside pipe diameter (mm)                            |                                           |                                                | /                        |                          | D ≥ 75 mm (Rotated) for PA, PB and PC - D ≥ 500 mm (Fixed)                               |
| Welding position                                      | EN ISO 6947                               |                                                | PC                       |                          | P.BW : /<br>P.FW : Flat, Horizontal<br>T.BW : /<br>T.FW : Flat, Horizontal<br>Branch : / |

| Type of tests                       | Performed and accepted              |                          | Not performed                       |                                     |
|-------------------------------------|-------------------------------------|--------------------------|-------------------------------------|-------------------------------------|
|                                     | Ass. 1                              | Ass. Sup.                | Ass. 1                              | Ass. Sup.                           |
| Visual testing                      | <input checked="" type="checkbox"/> | <input type="checkbox"/> | /                                   | /                                   |
| Radiography (or Ultrasonic Testing) | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Magnetic Particle Test              | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Dye Penetrant Test                  | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Macroscopic examination             | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Fracture test                       | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Bend test                           | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Additional test(s)                  | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |

| Issued at | Validity starting date | Valid until (date)                                                                                                       | Examiner Name | Issuer Name & Date of issue |
|-----------|------------------------|--------------------------------------------------------------------------------------------------------------------------|---------------|-----------------------------|
| Shanghai  | 11/19/2018             | 9.3 a <input type="checkbox"/><br>9.3 b <input checked="" type="checkbox"/><br>9.3 c <input type="checkbox"/> 11/18/2020 | WEITAO KE     | JIE NIE 12/20/2018          |



Certificat n° : FRA-18-A12947  
Certificate N° :  
N° enregistrement / Registration number SnuBxHf

**Certificat n° : FRA-18-A12947**

Certificate N° :

N° enregistrement / Registration number SnubXhF

**Prolongation for approval by Examiner or Examining Body (refer to § 9.3)**

[illegible]

Tables 4 and 5 of § 5.6 :

The type of covering or flux cored wire used in the qualification test of welders for root run welding without backing (ss nb) is the type of covering or flux cored wire qualified for root run welding in production with no backing (ss nb).







## WELDER APPROVAL TEST CERTIFICATE IN ACCORDANCE WITH EN ISO 9606-1 : 2017

### Additional requirements :

DESIGNATION (A) EN ISO 9606-1 136 P FW FM1 P t 25/25 PC ml

WPS reference N° : PWPS-FCAW-001 Rev. 01

Sample identification : EN-006



Welder :  
Name : Yubin Wu  
First name : Yubin  
Date of birth : 09/01/1969  
Place of birth : Huaihua City, Hunan Province  
Employer : Zhejiang Jiangnan Steel Structure Co., Ltd  
Job Knowledge : ☐ Acceptable  
Supplementary Fillet Weld Test : ☐ Performed and acceptable

Identification : 433022196909010816  
Identification method : National ID Card

Welder number : JNGG-W04  
☒ Not tested  
☒ Not performed



| Qualification variables                               |                                           | Associated standard |     | Weld test details                              |                              |                                     | Range of qualification (1)                                                                |  |
|-------------------------------------------------------|-------------------------------------------|---------------------|-----|------------------------------------------------|------------------------------|-------------------------------------|-------------------------------------------------------------------------------------------|--|
|                                                       |                                           |                     |     | Assembly 1 <input checked="" type="checkbox"/> |                              |                                     | (1) The qualification range is provided for guidance, the standard is the only reference. |  |
| Welding process(es)                                   | EN ISO 4063                               | Process             | (A) | 136                                            |                              |                                     | 136                                                                                       |  |
| Transfer mode                                         | EN ISO 4063                               | Process             | (A) | /                                              |                              |                                     | /                                                                                         |  |
| Current type and polarity                             |                                           |                     | (A) | DC                                             | (+) / (-)                    |                                     | Non essential variable                                                                    |  |
| Product type : Plate (P) or pipe (T)                  |                                           |                     |     | P                                              |                              |                                     | P + T                                                                                     |  |
| Type of weld                                          |                                           |                     |     | FW                                             |                              |                                     | FW                                                                                        |  |
| Assemblage type : Branch joint                        |                                           |                     |     | P1a <input type="checkbox"/>                   | P1b <input type="checkbox"/> | P1c <input type="checkbox"/>        | /                                                                                         |  |
| Weld details: gouging / backing                       |                                           | (A)                 |     | ml                                             |                              |                                     | sl, ml                                                                                    |  |
| Parent metal group(s)                                 |                                           | CEN ISO TR 15608    |     | 1                                              |                              |                                     | (A) : Groups 1 to 11 CEN ISO/TR 15608                                                     |  |
| Filler metal type and designation See Note 1 overleaf |                                           | (A)                 | P   | T 42 2 P C 1 H 5                               |                              |                                     | R,P,V,W,Y,Z                                                                               |  |
| Filler material(s) group                              |                                           | (A)                 |     | FM1                                            |                              |                                     | FM1 - FM2                                                                                 |  |
| Shielding gas or flux                                 | EN ISO 14174 (flux)<br>EN ISO 14175 (gaz) | (A)                 |     | C1                                             |                              |                                     | Non essential variable                                                                    |  |
| Auxiliaries                                           |                                           | (A)                 |     | /                                              |                              |                                     | Non essential variable                                                                    |  |
| Parent metal Thickness (mm)                           |                                           | min                 |     | 25                                             |                              |                                     | ≥ 3                                                                                       |  |
|                                                       |                                           | max                 |     | 25                                             |                              |                                     | ≥ 3                                                                                       |  |
| Deposited metal thickness (mm)                        |                                           | (A)                 |     | /                                              |                              |                                     | /                                                                                         |  |
| Outside pipe diameter (mm)                            |                                           |                     |     | /                                              |                              |                                     | D ≥ 75 mm (Rotated) for PA, PB and PC - D ≥ 500 mm (Fixed)                                |  |
| Welding position                                      | EN ISO 6947                               |                     |     | PC                                             |                              |                                     | P.BW : /<br>P.FW : Flat, Horizontal<br>T.BW : /<br>T.FW : Flat, Horizontal<br>Branch : /  |  |
| Type of tests                                         |                                           |                     |     | Performed and accepted                         |                              | Not performed                       |                                                                                           |  |
|                                                       |                                           |                     |     | Ass. 1                                         | Ass. Sup.                    | Ass. 1                              | Ass. Sup.                                                                                 |  |
| Visual testing                                        |                                           |                     |     | <input checked="" type="checkbox"/>            | <input type="checkbox"/>     | /                                   | /                                                                                         |  |
| Radiography (or Ultrasonic Testing)                   |                                           |                     |     | <input type="checkbox"/>                       | <input type="checkbox"/>     | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/>                                                       |  |
| Magnetic Particle Test                                |                                           |                     |     | <input type="checkbox"/>                       | <input type="checkbox"/>     | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/>                                                       |  |
| Dye Penetrant Test                                    |                                           |                     |     | <input type="checkbox"/>                       | <input type="checkbox"/>     | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/>                                                       |  |
| Macroscopic examination                               |                                           |                     |     | <input checked="" type="checkbox"/>            | <input type="checkbox"/>     | <input type="checkbox"/>            | <input checked="" type="checkbox"/>                                                       |  |
| Fracture test                                         |                                           |                     |     | <input type="checkbox"/>                       | <input type="checkbox"/>     | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/>                                                       |  |
| Bend test                                             |                                           |                     |     | <input type="checkbox"/>                       | <input type="checkbox"/>     | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/>                                                       |  |
| Additional test(s)                                    |                                           |                     |     | <input type="checkbox"/>                       | <input type="checkbox"/>     | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/>                                                       |  |

|           |                        |                                                                                                                          |               |                             |
|-----------|------------------------|--------------------------------------------------------------------------------------------------------------------------|---------------|-----------------------------|
| Issued at | Validity starting date | Valid until (date)                                                                                                       | Examiner Name | Issuer Name & Date of issue |
| Shanghai  | 11/19/2018             | 9.3 a <input type="checkbox"/><br>9.3 b <input checked="" type="checkbox"/><br>9.3 c <input type="checkbox"/> 11/18/2020 | WEITAO KE     | JIE NIE 12/20/2018          |



N° enregistrement / *Registration number* a2bIYIW

A circular blue ink stamp from Bureau Veritas China. The outer ring contains the text 'BUREAU VERITAS' at the top and 'CHINA' at the bottom. In the center, the number '020' is stamped. The stamp is slightly tilted and has a textured, ink-like appearance.

The type of covering or flux cored wire used in the qualification test of welders for root run welding without backing (ss nb) is the type of covering or flux cored wire qualified for root run welding in production with no backing (ss nb).





## WELDER APPROVAL TEST CERTIFICATE IN ACCORDANCE WITH EN ISO 9606-1 : 2017

### Additional requirements :

DESIGNATION (A) EN ISO 9606-1 136 P FW FM1 P t 25/25 PC ml

WPS reference N° : PWPS-FCAW-001 Rev. 01

Sample identification : EN-011



Welder :  
Name : Yunkui Wang  
First name : Yunkui  
Date of birth : 11/01/1972  
Place of birth : Fengyang County, Anhui Province  
Employer : Zhejiang Jiangnan Steel Structure Co., Ltd  
Job Knowledge : ☐ Acceptable  
Supplementary Fillet Weld Test : ☐ Performed and acceptable

Identification : 341126197211011210  
Identification method : National ID Card

Welder number : JNGG-W011  
☒ Not tested  
☒ Not performed



| Qualification variables                               | Associated standard                       | Weld test details                              |     |                  | Range of qualification (1)                                                               |
|-------------------------------------------------------|-------------------------------------------|------------------------------------------------|-----|------------------|------------------------------------------------------------------------------------------|
|                                                       |                                           | Assembly 1 <input checked="" type="checkbox"/> |     |                  |                                                                                          |
| Welding process(es)                                   | EN ISO 4063                               | Process                                        | (A) | 136              | 136                                                                                      |
| Transfer mode                                         | EN ISO 4063                               | Process                                        | (A) | /                | /                                                                                        |
| Current type and polarity                             |                                           |                                                | (A) | DC (+)           | Non essential variable                                                                   |
| Product type : Plate (P) or pipe (T)                  |                                           |                                                |     | P                | P + T                                                                                    |
| Type of weld                                          |                                           |                                                |     | FW               | FW                                                                                       |
| Assemblage type : Branch joint                        |                                           | P1a                                            | P1b | P1c              | /                                                                                        |
| Weld details: gouging / backing                       |                                           | (A)                                            |     | ml               | sl, ml                                                                                   |
| Parent metal group(s)                                 | CEN ISO TR 15608                          |                                                |     | /                | (A) : Groups 1 to 11 CEN ISO/TR 15608                                                    |
| Filler metal type and designation See Note 1 overleaf |                                           | (A)                                            | P   | T 42 2 P C 1 H 5 | R,P,V,W,Y,Z                                                                              |
| Filler material(s) group                              |                                           | (A)                                            |     | FM1              | FM1 - FM2                                                                                |
| Shielding gas or flux                                 | EN ISO 14174 (flux)<br>EN ISO 14175 (gaz) | (A)                                            |     | C1               | Non essential variable                                                                   |
| Auxiliaries                                           |                                           | (A)                                            |     | /                | Non essential variable                                                                   |
| Parent metal Thickness (mm)                           |                                           | min                                            |     | 25               | ≥ 3                                                                                      |
|                                                       |                                           | max                                            |     | 25               | ≥ 3                                                                                      |
| Deposited metal thickness (mm)                        |                                           | (A)                                            |     | /                | /                                                                                        |
| Outside pipe diameter (mm)                            |                                           |                                                |     | /                | D ≥ 75 mm (Rotated) for PA, PB and PC - D ≥ 500 mm (Fixed)                               |
| Welding position                                      | EN ISO 6947                               |                                                |     | PC               | P.BW : /<br>P.FW : Flat, Horizontal<br>T.BW : /<br>T.FW : Flat, Horizontal<br>Branch : / |

| Type of tests                       | Performed and accepted              |                          | Not performed                       |                                     |
|-------------------------------------|-------------------------------------|--------------------------|-------------------------------------|-------------------------------------|
|                                     | Ass. 1                              | Ass. Sup.                | Ass. 1                              | Ass. Sup.                           |
| Visual testing                      | <input checked="" type="checkbox"/> | <input type="checkbox"/> | /                                   | /                                   |
| Radiography (or Ultrasonic Testing) | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Magnetic Particle Test              | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Dye Penetrant Test                  | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Macroscopic examination             | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Fracture test                       | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Bend test                           | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Additional test(s)                  | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |

| Issued at | Validity starting date | Valid until (date)                                                                                                       | Examiner Name | Issuer Name & Date of issue |
|-----------|------------------------|--------------------------------------------------------------------------------------------------------------------------|---------------|-----------------------------|
| Shanghai  | 11/19/2018             | 9.3 a <input type="checkbox"/><br>9.3 b <input checked="" type="checkbox"/><br>9.3 c <input type="checkbox"/> 11/18/2020 | WEITAO KE     | JIE NIE 12/20/2018          |



|                                                                                          |                                                                 |
|------------------------------------------------------------------------------------------|-----------------------------------------------------------------|
| <b>CERTIFICAT DE QUALIFICATION DE SOUDEUR</b><br><i>WELDER APPROVAL TEST CERTIFICATE</i> | <b>Certificat n° :</b> FRA-18-A12950<br><i>Certificate N° :</i> |
|                                                                                          | <b>N° enregistrement / Registration number</b> Ij0tqJ1          |

Certificate N° :

N° enregistrement / *Registration number* lj0tqJ1

Prolongation for approval by Examiner or Examining Body (refer to § 9.3)

[illegible]

Tables 4 and 5 of § 5.6 :

The type of covering or flux cored wire used in the qualification test of welders for root run welding without backing (ss nb) is the type of covering or flux cored wire qualified for root run welding in production with no backing (ss nb).







|                  |               |       |
|------------------|---------------|-------|
| File N° :        | 6096224-1001  | Page  |
| Certificate N° : | FRA-18-A12962 | 1 / 2 |

## WELDER APPROVAL TEST CERTIFICATE IN ACCORDANCE WITH EN ISO 9606-1 : 2017

### Additional requirements :

DESIGNATION (A) EN ISO 9606-1 136 P FW FM1 P t 25/25 PC ml

WPS reference N° : PWPS-FCAW-001 Rev. 01

Sample identification : EN-010



Welder :  
Name : Lichao Zhou  
First name : Lichao  
Date of birth : 06/10/1989  
Place of birth : Dingyuan County, Anhui Province  
Employer : Zhejiang Jiangnan Steel Structure Co., Ltd  
Job Knowledge : ☐ Acceptable  
Supplementary Fillet Weld Test : ☐ Performed and acceptable

Identification : 341125198906102774  
Identification method : National ID Card

Welder number : JNGG-010  
☒ Not tested  
☒ Not performed



| Qualification variables                               | Associated standard                       | Weld test details                              |     |                  | Range of qualification (1)                                                               |
|-------------------------------------------------------|-------------------------------------------|------------------------------------------------|-----|------------------|------------------------------------------------------------------------------------------|
|                                                       |                                           | Assembly 1 <input checked="" type="checkbox"/> |     |                  |                                                                                          |
| Welding process(es)                                   | EN ISO 4063                               | Process                                        | (A) | 136              | 136                                                                                      |
| Transfer mode                                         | EN ISO 4063                               | Process                                        | (A) | /                | /                                                                                        |
| Current type and polarity                             |                                           |                                                | (A) | DC (+)           | Non essential variable                                                                   |
| Product type : Plate (P) or pipe (T)                  |                                           |                                                |     | P                | P + T                                                                                    |
| Type of weld                                          |                                           |                                                |     | FW               | FW                                                                                       |
| Assemblage type : Branch joint                        |                                           | P1a                                            | P1b | P1c              | /                                                                                        |
| Weld details: gouging / backing                       |                                           | (A)                                            | ml  |                  | sl, ml                                                                                   |
| Parent metal group(s)                                 | CEN ISO TR 15608                          |                                                | 1   | (A) :            | Groups 1 to 11 CEN ISO/TR 15608                                                          |
| Filler metal type and designation See Note 1 overleaf |                                           | (A)                                            | P   | T 42 2 P C 1 H 5 | R,P,V,W,Y,Z                                                                              |
| Filler material(s) group                              |                                           | (A)                                            |     | FM1              | FM1 - FM2                                                                                |
| Shielding gas or flux                                 | EN ISO 14174 (flux)<br>EN ISO 14175 (gaz) | (A)                                            |     | C1               | Non essential variable                                                                   |
| Auxiliaries                                           |                                           | (A)                                            |     | /                | Non essential variable                                                                   |
| Parent metal Thickness (mm)                           |                                           | min                                            | 25  |                  | ≥ 3                                                                                      |
|                                                       |                                           | max                                            | 25  |                  | ≥ 3                                                                                      |
| Deposited metal thickness (mm)                        |                                           | (A)                                            | /   |                  | /                                                                                        |
| Outside pipe diameter (mm)                            |                                           |                                                | /   |                  | D ≥ 75 mm (Rotated) for PA, PB and PC - D ≥ 500 mm (Fixed)                               |
| Welding position                                      | EN ISO 6947                               |                                                |     | PC               | P.BW : /<br>P.FW : Flat, Horizontal<br>T.BW : /<br>T.FW : Flat, Horizontal<br>Branch : / |

| Type of tests                       | Performed and accepted              |                          | Not performed                       |                                     |
|-------------------------------------|-------------------------------------|--------------------------|-------------------------------------|-------------------------------------|
|                                     | Ass. 1                              | Ass. Sup.                | Ass. 1                              | Ass. Sup.                           |
| Visual testing                      | <input checked="" type="checkbox"/> | <input type="checkbox"/> | /                                   | /                                   |
| Radiography (or Ultrasonic Testing) | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Magnetic Particle Test              | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Dye Penetrant Test                  | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Macroscopic examination             | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Fracture test                       | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Bend test                           | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Additional test(s)                  | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |

| Issued at | Validity starting date | Valid until (date)                                                                                                       | Examiner Name | Issuer Name & Date of issue |
|-----------|------------------------|--------------------------------------------------------------------------------------------------------------------------|---------------|-----------------------------|
| Shanghai  | 11/19/2018             | 9.3 a <input type="checkbox"/><br>9.3 b <input checked="" type="checkbox"/><br>9.3 c <input type="checkbox"/> 11/18/2020 | WEITAO KE     | JIE NIE 12/20/2018          |



|                                                                                          |                                                                 |
|------------------------------------------------------------------------------------------|-----------------------------------------------------------------|
| <b>CERTIFICAT DE QUALIFICATION DE SOUDEUR</b><br><i>WELDER APPROVAL TEST CERTIFICATE</i> | <b>Certificat n° :</b> FRA-18-A12962<br><i>Certificate N° :</i> |
|                                                                                          | <b>N° enregistrement / Registration number</b> D3nx56w          |

*Certificate N° :*

N° enregistrement / *Registration number* D3nx56w

Prolongation for approval by Examiner or Examining Body (refer to § 9.3)

[illegible]

Tables 4 and 5 of § 5.6 :

The type of covering or flux cored wire used in the qualification test of welders for root run welding without backing (ss nb) is the type of covering or flux cored wire qualified for root run welding in production with no backing (ss nb).







## WELDER APPROVAL TEST CERTIFICATE IN ACCORDANCE WITH EN ISO 9606-1 : 2017

### Additional requirements :

DESIGNATION (A) EN ISO 9606-1 136 P FW FM1 P t 25/25 PC ml

WPS reference N° : PWPS-FCAW-001 Rev. 01

Sample identification : EN-016



Welder :  
Name : Guoqiang Lang  
First name : Guoqiang  
Date of birth : 02/20/1984  
Place of birth : Weishi County, Henan Province  
Employer : Zhejiang Jiangnan Steel Structure Co., Ltd  
Job Knowledge : ☐ Acceptable  
Supplementary Fillet Weld Test : ☐ Performed and acceptable

Identification : 410223198402203512  
Identification method : National ID Card

Welder number : JNGG-W013  
☒ Not tested  
☒ Not performed



| Qualification variables                               | Associated standard                       | Weld test details                              |                          |                                     | Range of qualification (1)                                                               |
|-------------------------------------------------------|-------------------------------------------|------------------------------------------------|--------------------------|-------------------------------------|------------------------------------------------------------------------------------------|
|                                                       |                                           | Assembly 1 <input checked="" type="checkbox"/> |                          |                                     |                                                                                          |
| Welding process(es)                                   | EN ISO 4063                               | Process                                        | (A)                      | 136                                 | 136                                                                                      |
| Transfer mode                                         | EN ISO 4063                               | Process                                        | (A)                      | /                                   | /                                                                                        |
| Current type and polarity                             |                                           |                                                | (A)                      | DC (+)                              | Non essential variable                                                                   |
| Product type : Plate (P) or pipe (T)                  |                                           |                                                |                          | P                                   | P + T                                                                                    |
| Type of weld                                          |                                           |                                                |                          | FW                                  | FW                                                                                       |
| Assemblage type : Branch joint                        |                                           | P1a                                            | P1b                      | P1c                                 | /                                                                                        |
| Weld details: gouging / backing                       |                                           | (A)                                            |                          | ml                                  | sl, ml                                                                                   |
| Parent metal group(s)                                 | CEN ISO TR 15608                          |                                                |                          | 1                                   | (A) : Groups 1 to 11 CEN ISO/TR 15608                                                    |
| Filler metal type and designation See Note 1 overleaf |                                           | (A)                                            | P                        | T 42 2 P C 1 H 5                    | R,P,V,W,Y,Z                                                                              |
| Filler material(s) group                              |                                           | (A)                                            |                          | FM1                                 | FM1 - FM2                                                                                |
| Shielding gas or flux                                 | EN ISO 14174 (flux)<br>EN ISO 14175 (gaz) | (A)                                            |                          | C1                                  | Non essential variable                                                                   |
| Auxiliaries                                           |                                           | (A)                                            |                          | /                                   | Non essential variable                                                                   |
| Parent metal Thickness (mm)                           |                                           | min                                            |                          | 25                                  | ≥ 3                                                                                      |
|                                                       |                                           | max                                            |                          | 25                                  | ≥ 3                                                                                      |
| Deposited metal thickness (mm)                        |                                           | (A)                                            |                          | /                                   | /                                                                                        |
| Outside pipe diameter (mm)                            |                                           |                                                |                          | /                                   | D ≥ 75 mm (Rotated) for PA, PB and PC - D ≥ 500 mm (Fixed)                               |
| Welding position                                      | EN ISO 6947                               |                                                |                          | PC                                  | P.BW : /<br>P.FW : Flat, Horizontal<br>T.BW : /<br>T.FW : Flat, Horizontal<br>Branch : / |
| Type of tests                                         |                                           | Performed and accepted                         |                          | Not performed                       |                                                                                          |
|                                                       |                                           | Ass. 1                                         | Ass. Sup.                | Ass. 1                              | Ass. Sup.                                                                                |
| Visual testing                                        |                                           | <input checked="" type="checkbox"/>            | <input type="checkbox"/> | /                                   | /                                                                                        |
| Radiography (or Ultrasonic Testing)                   |                                           | <input type="checkbox"/>                       | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/>                                                      |
| Magnetic Particle Test                                |                                           | <input type="checkbox"/>                       | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/>                                                      |
| Dye Penetrant Test                                    |                                           | <input type="checkbox"/>                       | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/>                                                      |
| Macroscopic examination                               |                                           | <input checked="" type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/>                                                      |
| Fracture test                                         |                                           | <input type="checkbox"/>                       | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/>                                                      |
| Bend test                                             |                                           | <input type="checkbox"/>                       | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/>                                                      |
| Additional test(s)                                    |                                           | <input type="checkbox"/>                       | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/>                                                      |

| Issued at | Validity starting date | Valid until (date)                                                                                                       | Examiner Name | Issuer Name & Date of issue |
|-----------|------------------------|--------------------------------------------------------------------------------------------------------------------------|---------------|-----------------------------|
| Shanghai  | 11/19/2018             | 9.3 a <input type="checkbox"/><br>9.3 b <input checked="" type="checkbox"/><br>9.3 c <input type="checkbox"/> 11/18/2020 | WEITAO KE     | JIE NIE 12/20/2018          |



|                                                                                          |                                                                 |
|------------------------------------------------------------------------------------------|-----------------------------------------------------------------|
| <b>CERTIFICAT DE QUALIFICATION DE SOUDEUR</b><br><i>WELDER APPROVAL TEST CERTIFICATE</i> | <b>Certificat n° :</b> FRA-18-A12951<br><i>Certificate N° :</i> |
|                                                                                          | <b>N° enregistrement / Registration number</b> IKZDd0c          |

*Certificate N° :*

N° enregistrement / *Registration number* IKZDd0c

**Prolongation for approval by Examiner or Examining Body (refer to § 9.3)**

[illegible]

Tables 4 and 5 of § 5.6 :

The type of covering or flux cored wire used in the qualification test of welders for root run welding without backing (ss nb) is the type of covering or flux cored wire qualified for root run welding in production with no backing (ss nb).







## WELDER APPROVAL TEST CERTIFICATE IN ACCORDANCE WITH EN ISO 9606-1 : 2017

### Additional requirements :

DESIGNATION (A) EN ISO 9606-1 136 P BW FM1 P s 16 PF bs

WPS reference N° : PWPS-FCAW-002 Rev. 01

Sample identification : EN-014



Welder : Name : Zaili Man  
First name : Zaili  
Date of birth : 08/01/1983  
Place of birth : Weishan County, Shandong Provi

Identification : 370826198308014618  
Identification method : National ID Card



Employer : Zhejiang Jiangnan Steel Structure Co., Ltd  
Job Knowledge : ☐ Acceptable  
Supplementary Fillet Weld Test : ☐ Performed and acceptable

Welder number : JNGG-W014  
☒ Not tested  
☒ Not performed

| Qualification variables                               |                                           | Associated standard |     | Weld test details                              |                              |                              | Range of qualification (1)                                                                 |  |
|-------------------------------------------------------|-------------------------------------------|---------------------|-----|------------------------------------------------|------------------------------|------------------------------|--------------------------------------------------------------------------------------------|--|
|                                                       |                                           |                     |     | Assembly 1 <input checked="" type="checkbox"/> |                              |                              | (1) The qualification range is provided for guidance, the standard is the only reference.  |  |
| Welding process(es)                                   | EN ISO 4063                               | Process             | (A) | 136                                            |                              |                              | 136                                                                                        |  |
| Transfer mode                                         | EN ISO 4063                               | Process             | (A) | /                                              |                              |                              | /                                                                                          |  |
| Current type and polarity                             |                                           |                     | (A) | DC                                             | (+) (+)                      |                              | Non essential variable                                                                     |  |
| Product type : Plate (P) or pipe (T)                  |                                           |                     |     | P                                              |                              |                              | P + T                                                                                      |  |
| Type of weld                                          |                                           |                     |     | BW                                             |                              |                              | BW                                                                                         |  |
| Assemblage type : Branch joint                        |                                           |                     |     | P1a <input type="checkbox"/>                   | P1b <input type="checkbox"/> | P1c <input type="checkbox"/> | /                                                                                          |  |
| Weld details: gouging / backing                       |                                           | (A)                 |     | bs                                             |                              |                              | ss, mb ; bs                                                                                |  |
| Parent metal group(s)                                 | CEN ISO TR 15608                          |                     |     | 1                                              |                              |                              | (A) : Groups 1 to 11 CEN ISO/TR 15608                                                      |  |
| Filler metal type and designation See Note 1 overleaf |                                           | (A)                 | P   | T 42 2 P C 1 H 5                               |                              |                              | R,P,V,W,Y,Z                                                                                |  |
| Filler material(s) group                              |                                           | (A)                 |     | FM1                                            |                              |                              | FM1 - FM2                                                                                  |  |
| Shielding gas or flux                                 | EN ISO 14174 (flux)<br>EN ISO 14175 (gaz) | (A)                 |     | C1                                             |                              |                              | Non essential variable                                                                     |  |
| Auxiliaries                                           |                                           | (A)                 |     | /                                              |                              |                              | Non essential variable                                                                     |  |
| Parent metal Thickness (mm)                           |                                           |                     |     | /                                              |                              |                              | /                                                                                          |  |
| Deposited metal thickness (mm)                        |                                           | (A)                 |     | 16                                             |                              |                              | ≥ 3                                                                                        |  |
| Outside pipe diameter (mm)                            |                                           |                     |     | /                                              |                              |                              | D ≥ 75 mm (Rotated) for PA and PB - D ≥ 500 mm (Fixed)                                     |  |
| Welding position                                      | EN ISO 6947                               |                     |     | PF                                             |                              |                              | P.BW : Flat, Vertical Up<br>P.FW : /<br>T.BW : Flat, Vertical Up<br>T.FW : /<br>Branch : / |  |

| Type of tests                       | Performed and accepted              |                          | Not performed                       |                                     |
|-------------------------------------|-------------------------------------|--------------------------|-------------------------------------|-------------------------------------|
|                                     | Ass. 1                              | Ass. Sup.                | Ass. 1                              | Ass. Sup.                           |
| Visual testing                      | <input checked="" type="checkbox"/> | <input type="checkbox"/> | /                                   | /                                   |
| Radiography (or Ultrasonic Testing) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Magnetic Particle Test              | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Dye Penetrant Test                  | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Macroscopic examination             | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Fracture test                       | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Bend test                           | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Additional test(s)                  | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |

| Issued at | Validity starting date | Valid until (date)                                                                                                       | Examiner Name | Issuer Name & Date of issue |
|-----------|------------------------|--------------------------------------------------------------------------------------------------------------------------|---------------|-----------------------------|
| Shanghai  | 11/19/2018             | 9.3 a <input type="checkbox"/><br>9.3 b <input checked="" type="checkbox"/><br>9.3 c <input type="checkbox"/> 11/18/2020 | WEITAO KE     | JIE NIE 12/21/2018          |

|                                                                                          |                                                                 |
|------------------------------------------------------------------------------------------|-----------------------------------------------------------------|
| <b>CERTIFICAT DE QUALIFICATION DE SOUDEUR</b><br><b>WELDER APPROVAL TEST CERTIFICATE</b> | <b>Certificat n° :</b> FRA-18-A12997<br><b>Certificate N° :</b> |
|                                                                                          | <b>N° enregistrement / Registration number</b> Ym2cArq          |

Certificate N° :

N° enregistrement / *Registration number* Ym2cArg

**Prolongation for approval by Examiner or Examining Body (refer to § 9.3)**

[illegible]

**Note 1 :**  
Tables 4 and 5 of § 5.6 : The type of covering or flux cored wire used in the qualification test of welders for root run welding without backing (ss nb) is the type of covering or flux cored wire qualified for root run welding in production with no backing (ss nb).

Tables 4 and 5 of § 5.6 :

The type of covering or flux cored wire used in the qualification test of welders for root run welding without backing (ss nb) is the type of covering or flux cored wire qualified for root run welding in production with no backing (ss nb).







## WELDER APPROVAL TEST CERTIFICATE IN ACCORDANCE WITH EN ISO 9606-1 : 2017



### Additional requirements :

DESIGNATION (A) EN ISO 9606-1 136 P BW FM1 P s 16 PF bs

WPS reference N° : PWPS-FCAW-002 Rev. 01

Sample identification : EN-009

Welder : Name : Lidong Zhou  
First name : Lidong  
Date of birth : 06/10/1987  
Place of birth : Dingyuan County, Anhui Province

Identification : 341125198706102710  
Identification method : National ID Card



Employer : Zhejiang Jiangnan Steel Structure Co., Ltd  
Job Knowledge : ☐ Acceptable  
Supplementary Fillet Weld Test : ☐ Performed and acceptable

Welder number : JNGG-W09  
☒ Not tested  
☒ Not performed

| Qualification variables                               |                                           | Associated standard |     | Weld test details                              |                              |                                     | Range of qualification (1)                                                                 |  |
|-------------------------------------------------------|-------------------------------------------|---------------------|-----|------------------------------------------------|------------------------------|-------------------------------------|--------------------------------------------------------------------------------------------|--|
|                                                       |                                           |                     |     | Assembly 1 <input checked="" type="checkbox"/> |                              |                                     | (1) The qualification range is provided for guidance, the standard is the only reference.  |  |
| Welding process(es)                                   | EN ISO 4063                               | Process             | (A) | 136                                            |                              |                                     | 136                                                                                        |  |
| Transfer mode                                         | EN ISO 4063                               | Process             | (A) | /                                              |                              |                                     | /                                                                                          |  |
| Current type and polarity                             |                                           |                     | (A) | DC                                             | (+) (+)                      |                                     | Non essential variable                                                                     |  |
| Product type : Plate (P) or pipe (T)                  |                                           |                     |     | P                                              |                              |                                     | P + T                                                                                      |  |
| Type of weld                                          |                                           |                     |     | BW                                             |                              |                                     | BW                                                                                         |  |
| Assemblage type : Branch joint                        |                                           |                     |     | P1a <input type="checkbox"/>                   | P1b <input type="checkbox"/> | P1c <input type="checkbox"/>        | /                                                                                          |  |
| Weld details: gouging / backing                       |                                           | (A)                 |     | bs                                             |                              |                                     | ss, mb ; bs                                                                                |  |
| Parent metal group(s)                                 | CEN ISO TR 15608                          |                     |     | 1                                              |                              |                                     | (A) : Groups 1 to 11 CEN ISO/TR 15608                                                      |  |
| Filler metal type and designation See Note 1 overleaf |                                           | (A)                 | P   | T 42 2 P C 1 H 5                               |                              |                                     | R,P,V,W,Y,Z                                                                                |  |
| Filler material(s) group                              |                                           | (A)                 |     | FM1                                            |                              |                                     | FM1 - FM2                                                                                  |  |
| Shielding gas or flux                                 | EN ISO 14174 (flux)<br>EN ISO 14175 (gaz) | (A)                 |     | C1                                             |                              |                                     | Non essential variable                                                                     |  |
| Auxiliaries                                           |                                           | (A)                 |     | /                                              |                              |                                     | Non essential variable                                                                     |  |
| Parent metal Thickness (mm)                           |                                           |                     |     | /                                              |                              |                                     | /                                                                                          |  |
| Deposited metal thickness (mm)                        |                                           | (A)                 |     | 16                                             |                              |                                     | ≥ 3                                                                                        |  |
| Outside pipe diameter (mm)                            |                                           |                     |     | /                                              |                              |                                     | D ≥ 75 mm (Rotated) for PA and PB - D ≥ 500 mm (Fixed)                                     |  |
| Welding position                                      | EN ISO 6947                               |                     |     | PF                                             |                              |                                     | P.BW : Flat, Vertical Up<br>P.FW : /<br>T.BW : Flat, Vertical Up<br>T.FW : /<br>Branch : / |  |
| Type of tests                                         |                                           |                     |     | Performed and accepted                         |                              | Not performed                       |                                                                                            |  |
|                                                       |                                           |                     |     | Ass. 1                                         | Ass. Sup.                    | Ass. 1                              | Ass. Sup.                                                                                  |  |
| Visual testing                                        |                                           |                     |     | <input checked="" type="checkbox"/>            | <input type="checkbox"/>     | /                                   | /                                                                                          |  |
| Radiography (or Ultrasonic Testing)                   |                                           |                     |     | <input checked="" type="checkbox"/>            | <input type="checkbox"/>     | <input type="checkbox"/>            | <input checked="" type="checkbox"/>                                                        |  |
| Magnetic Particle Test                                |                                           |                     |     | <input type="checkbox"/>                       | <input type="checkbox"/>     | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/>                                                        |  |
| Dye Penetrant Test                                    |                                           |                     |     | <input type="checkbox"/>                       | <input type="checkbox"/>     | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/>                                                        |  |
| Macroscopic examination                               |                                           |                     |     | <input type="checkbox"/>                       | <input type="checkbox"/>     | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/>                                                        |  |
| Fracture test                                         |                                           |                     |     | <input type="checkbox"/>                       | <input type="checkbox"/>     | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/>                                                        |  |
| Bend test                                             |                                           |                     |     | <input type="checkbox"/>                       | <input type="checkbox"/>     | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/>                                                        |  |
| Additional test(s)                                    |                                           |                     |     | <input type="checkbox"/>                       | <input type="checkbox"/>     | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/>                                                        |  |

| Issued at | Validity starting date | Valid until (date)                                                                                                       | Examiner Name | Issuer Name & Date of issue |
|-----------|------------------------|--------------------------------------------------------------------------------------------------------------------------|---------------|-----------------------------|
| Shanghai  | 11/19/2018             | 9.3 a <input type="checkbox"/><br>9.3 b <input checked="" type="checkbox"/><br>9.3 c <input type="checkbox"/> 11/18/2020 | WEITAO KE     | JIE NIE 12/21/2018          |



|                                                                                          |                                                                 |
|------------------------------------------------------------------------------------------|-----------------------------------------------------------------|
| <b>CERTIFICAT DE QUALIFICATION DE SOUDEUR</b><br><b>WELDER APPROVAL TEST CERTIFICATE</b> | <b>Certificat n° :</b> FRA-18-A12995<br><b>Certificate N° :</b> |
|                                                                                          | <b>N° enregistrement / Registration number</b> tMOmFHH          |

**Certificate N° :**

N° enregistrement / *Registration number* tMOmFHH

**Prolongation for approval by Examiner or Examining Body (refer to § 9.3)**

[illegible]

Tables 4 and 5 of § 5.6 :

The type of covering or flux cored wire used in the qualification test of welders for root run welding without backing (ss nb) is the type of covering or flux cored wire qualified for root run welding in production with no backing (ss nb).







## WELDER APPROVAL TEST CERTIFICATE IN ACCORDANCE WITH EN ISO 9606-1 : 2017

### Additional requirements :

DESIGNATION (A) EN ISO 9606-1 136 P BW FM1 P s 16 PF bs

WPS reference N° : PWPS-FCAW-002 Rev. 01

Sample identification : EN-003



Welder : Name : Xiaoguang Zhou  
First name : Xiaoguang  
Date of birth : 07/16/1989  
Place of birth : Zhoukou City, Henan Province  
Employer : Zhejiang Jiangnan Steel Structure Co., Ltd  
Job Knowledge : ☐ Acceptable  
Supplementary Fillet Weld Test : ☐ Performed and acceptable

Identification : 412726198907163817  
Identification method : National ID Card

Welder number : JNGG-W02  
☒ Not tested  
☒ Not performed



| Qualification variables                               |                                           | Associated standard |     | Weld test details                              |         |     | Range of qualification (1)                                                                 |  |
|-------------------------------------------------------|-------------------------------------------|---------------------|-----|------------------------------------------------|---------|-----|--------------------------------------------------------------------------------------------|--|
|                                                       |                                           |                     |     | Assembly 1 <input checked="" type="checkbox"/> |         |     | (1) The qualification range is provided for guidance, the standard is the only reference.  |  |
| Welding process(es)                                   | EN ISO 4063                               | Process             | (A) | 136                                            |         |     | 136                                                                                        |  |
| Transfer mode                                         | EN ISO 4063                               | Process             | (A) | /                                              |         |     | /                                                                                          |  |
| Current type and polarity                             |                                           |                     | (A) | DC                                             | (+) (+) |     | Non essential variable                                                                     |  |
| Product type : Plate (P) or pipe (T)                  |                                           |                     |     | P                                              |         |     | P + T                                                                                      |  |
| Type of weld                                          |                                           |                     |     | BW                                             |         |     | BW                                                                                         |  |
| Assemblage type : Branch joint                        |                                           |                     |     | P1a                                            | P1b     | P1c | /                                                                                          |  |
| Weld details: gouging / backing                       |                                           | (A)                 |     | bs                                             |         |     | ss, mb ; bs                                                                                |  |
| Parent metal group(s)                                 |                                           | CEN ISO TR 15608    |     | /                                              |         |     | (A) : Groups 1 to 11 CEN ISO/TR 15608                                                      |  |
| Filler metal type and designation See Note 1 overleaf |                                           | (A)                 | P   | T 422 P C 1 H 5                                |         |     | R,P,V,W,Y,Z                                                                                |  |
| Filler material(s) group                              |                                           | (A)                 |     | FM1                                            |         |     | FM1 - FM2                                                                                  |  |
| Shielding gas or flux                                 | EN ISO 14174 (flux)<br>EN ISO 14175 (gaz) | (A)                 |     | C1                                             |         |     | Non essential variable                                                                     |  |
| Auxiliaries                                           |                                           | (A)                 |     | /                                              |         |     | Non essential variable                                                                     |  |
| Parent metal Thickness (mm)                           |                                           |                     |     | /                                              |         |     | /                                                                                          |  |
| Deposited metal thickness (mm)                        |                                           | (A)                 |     | 16                                             |         |     | ≥ 3                                                                                        |  |
| Outside pipe diameter (mm)                            |                                           |                     |     | /                                              |         |     | D ≥ 75 mm (Rotated) for PA and PB - D ≥ 500 mm (Fixed)                                     |  |
| Welding position                                      | EN ISO 6947                               |                     |     | PF                                             |         |     | P.BW : Flat, Vertical Up<br>P.FW : /<br>T.BW : Flat, Vertical Up<br>T.FW : /<br>Branch : / |  |

| Type of tests                       | Performed and accepted              |                          | Not performed                       |                                     |
|-------------------------------------|-------------------------------------|--------------------------|-------------------------------------|-------------------------------------|
|                                     | Ass. 1                              | Ass. Sup.                | Ass. 1                              | Ass. Sup.                           |
| Visual testing                      | <input checked="" type="checkbox"/> | <input type="checkbox"/> | /                                   | /                                   |
| Radiography (or Ultrasonic Testing) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Magnetic Particle Test              | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Dye Penetrant Test                  | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Macroscopic examination             | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Fracture test                       | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Bend test                           | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Additional test(s)                  | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |

| Issued at | Validity starting date | Valid until (date)                                                                                                       | Examiner Name | Issuer Name & Date of issue |
|-----------|------------------------|--------------------------------------------------------------------------------------------------------------------------|---------------|-----------------------------|
| Shanghai  | 11/19/2018             | 9.3 a <input type="checkbox"/><br>9.3 b <input checked="" type="checkbox"/><br>9.3 c <input type="checkbox"/> 11/18/2020 | WEITAO KE     | JIE NIE 12/21/2018          |



|                                                                                          |                                                                 |
|------------------------------------------------------------------------------------------|-----------------------------------------------------------------|
| <b>CERTIFICAT DE QUALIFICATION DE SOUDEUR</b><br><i>WELDER APPROVAL TEST CERTIFICATE</i> | <b>Certificat n° :</b> FRA-18-A13007<br><i>Certificate N° :</i> |
|                                                                                          | <b>N° enregistrement / Registration number</b> y7dtY5           |

*Certificate N° :*

N° enregistrement / *Registration number* y7dtiY5

**Prolongation for approval by Examiner or Examining Body (refer to § 9.3)**

[illegible]

**Note 1 :**  
Tables 4 and 5 of § 5.6 : The type of covering or flux cored wire used in the qualification test of welders for root run welding without backing (ss nb) is the type of covering or flux cored wire qualified for root run welding in production with no backing (ss nb).

Tables 4 and 5 of § 5.6 :

The type of covering or flux cored wire used in the qualification test of welders for root run welding without backing (ss nb) is the type of covering or flux cored wire qualified for root run welding in production with no backing (ss nb).







## WELDER APPROVAL TEST CERTIFICATE IN ACCORDANCE WITH EN ISO 9606-1 : 2017

### Additional requirements :

DESIGNATION (A) EN ISO 9606-1 136 P FW FM1 P t 25/25 PC ml

WPS reference N° : PWPS-FCAW-001 Rev. 01

Sample identification : EN-005



Welder :  
Name : Xiaoguang Zhou  
First name : Xiaoguang  
Date of birth : 07/16/1989  
Place of birth : Zhoukou City, Henan Province  
Employer : Zhejiang Jiangnan Steel Structure Co., Ltd  
Job Knowledge : ☐ Acceptable  
Supplementary Fillet Weld Test : ☐ Performed and acceptable

Identification : 412726198907163817  
Identification method : National ID Card

Welder number : JNGG-W02  
☒ Not tested  
☒ Not performed



| Qualification variables                               |                                           | Associated standard                                                                 |     | Weld test details                              |                                 |                                 | Range of qualification (1)                                                                |                                 |
|-------------------------------------------------------|-------------------------------------------|-------------------------------------------------------------------------------------|-----|------------------------------------------------|---------------------------------|---------------------------------|-------------------------------------------------------------------------------------------|---------------------------------|
|                                                       |                                           |                                                                                     |     | Assembly 1 <input checked="" type="checkbox"/> |                                 |                                 | (1) The qualification range is provided for guidance, the standard is the only reference. |                                 |
| Welding process(es)                                   | EN ISO 4063                               | Process                                                                             | (A) | 136                                            |                                 |                                 | 136                                                                                       |                                 |
| Transfer mode                                         | EN ISO 4063                               | Process                                                                             | (A) | /                                              |                                 |                                 | /                                                                                         |                                 |
| Current type and polarity                             |                                           |                                                                                     | (A) | DC                                             | (+)                             |                                 | Non essential variable                                                                    |                                 |
| Product type : Plate (P) or pipe (T)                  |                                           |                                                                                     |     | P                                              |                                 |                                 | P + T                                                                                     |                                 |
| Type of weld                                          |                                           |                                                                                     |     | FW                                             |                                 |                                 | FW                                                                                        |                                 |
| Assemblage type : Branch joint                        |                                           |                                                                                     |     | P1a<br><input type="checkbox"/>                | P1b<br><input type="checkbox"/> | P1c<br><input type="checkbox"/> | /                                                                                         |                                 |
| Weld details: gouging / backing                       |                                           |                                                                                     | (A) | ml                                             |                                 |                                 | sl, ml                                                                                    |                                 |
| Parent metal group(s)                                 |                                           | CEN ISO TR 15608                                                                    |     | 1<br>/                                         |                                 |                                 | (A) :                                                                                     | Groups 1 to 11 CEN ISO/TR 15608 |
| Filler metal type and designation See Note 1 overleaf |                                           |                                                                                     | (A) | P                                              | T 42 2 P C 1 H 5                |                                 |                                                                                           | R,P,V,W,Y,Z                     |
| Filler material(s) group                              |                                           |                                                                                     | (A) | FM1                                            |                                 |                                 | FM1 - FM2                                                                                 |                                 |
| Shielding gas or flux                                 | EN ISO 14174 (flux)<br>EN ISO 14175 (gaz) |                                                                                     | (A) | C1                                             |                                 |                                 | Non essential variable                                                                    |                                 |
| Auxiliaries                                           |                                           |                                                                                     | (A) | /                                              |                                 |                                 | Non essential variable                                                                    |                                 |
| Parent metal Thickness (mm)                           |                                           |                                                                                     | min | 25                                             |                                 |                                 | ≥ 3                                                                                       |                                 |
|                                                       |                                           |                                                                                     | max | 25                                             |                                 |                                 | ≥ 3                                                                                       |                                 |
| Deposited metal thickness (mm)                        |                                           |                                                                                     | (A) | /                                              |                                 |                                 | /                                                                                         |                                 |
| Outside pipe diameter (mm)                            |                                           |                                                                                     |     | /                                              |                                 |                                 | D >=75 mm (Rotated) for PA, PB and PC - D >=500 mm (Fixed)                                |                                 |
| Welding position                                      | EN ISO 6947                               |  |     | PC                                             |                                 |                                 | P.BW : /<br>P.FW : Flat, Horizontal<br>T.BW : /<br>T.FW : Flat, Horizontal<br>Branch : /  |                                 |

| Type of tests                       | Performed and accepted              |                          | Not performed                       |                                     |
|-------------------------------------|-------------------------------------|--------------------------|-------------------------------------|-------------------------------------|
|                                     | Ass. 1                              | Ass. Sup.                | Ass. 1                              | Ass. Sup.                           |
| Visual testing                      | <input checked="" type="checkbox"/> | <input type="checkbox"/> | /                                   | /                                   |
| Radiography (or Ultrasonic Testing) | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Magnetic Particle Test              | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Dye Penetrant Test                  | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Macroscopic examination             | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Fracture test                       | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Bend test                           | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Additional test(s)                  | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |

| Issued at | Validity starting date | Valid until (date)                                                                                                       | Examiner Name | Issuer Name & Date of issue |
|-----------|------------------------|--------------------------------------------------------------------------------------------------------------------------|---------------|-----------------------------|
| Shanghai  | 11/19/2018             | 9.3 a <input type="checkbox"/><br>9.3 b <input checked="" type="checkbox"/><br>9.3 c <input type="checkbox"/> 11/18/2020 | WEITAO KE     | JIE NIE<br>12/20/2018       |



|                                                                                          |                                                                 |
|------------------------------------------------------------------------------------------|-----------------------------------------------------------------|
| <b>CERTIFICAT DE QUALIFICATION DE SOUDEUR</b><br><b>WELDER APPROVAL TEST CERTIFICATE</b> | <b>Certificat n° :</b> FRA-18-A12949<br><b>Certificate N° :</b> |
|                                                                                          | <b>N° enregistrement / Registration number</b> uLXZnRO          |

Certificate N° :

N° enregistrement / *Registration number* uLXZnRO

**Prolongation for approval by Examiner or Examining Body (refer to § 9.3)**

[illegible]

**Note 1 :**  
Tables 4 and 5 of § 5.6 : The type of covering or flux cored wire used in the qualification test of welders for root run welding without backing (ss nb) is the type of covering or flux cored wire qualified for root run welding in production with no backing (ss nb).

Tables 4 and 5 of § 5.6 :

The type of covering or flux cored wire used in the qualification test of welders for root run welding without backing (ss nb) is the type of covering or flux cored wire qualified for root run welding in production with no backing (ss nb).







## WELDER APPROVAL TEST CERTIFICATE IN ACCORDANCE WITH EN ISO 9606-1 : 2017

### Additional requirements :

DESIGNATION (A) EN ISO 9606-1 136 P BW FM1 P s 16 PF bs

WPS reference N° : PWPS-FCAW-002 Rev. 01

Sample identification : EN-008



Welder : Name : Shanshan Wang  
First name : Shanshan  
Date of birth : 01/20/1991  
Place of birth : Dingyuan County, Anhui Province

Identification : 341125199101203652  
Identification method : National ID Card



Employer : Zhejiang Jiangnan Steel Structure Co., Ltd  
Job Knowledge : ☐ Acceptable  
Supplementary Fillet Weld Test : ☐ Performed and acceptable

Welder number : JNGG-W08  
☒ Not tested  
☒ Not performed

| Qualification variables                               |                                           | Associated standard |     | Weld test details                              |                          |                                     | Range of qualification (1)                                                                 |  |
|-------------------------------------------------------|-------------------------------------------|---------------------|-----|------------------------------------------------|--------------------------|-------------------------------------|--------------------------------------------------------------------------------------------|--|
|                                                       |                                           |                     |     | Assembly 1 <input checked="" type="checkbox"/> |                          |                                     | (1) The qualification range is provided for guidance, the standard is the only reference.  |  |
| Welding process(es)                                   | EN ISO 4063                               | Process             | (A) | 136                                            |                          |                                     | 136                                                                                        |  |
| Transfer mode                                         | EN ISO 4063                               | Process             | (A) | /                                              |                          |                                     | /                                                                                          |  |
| Current type and polarity                             |                                           |                     | (A) | DC                                             | (+) (+)                  |                                     | Non essential variable                                                                     |  |
| Product type : Plate (P) or pipe (T)                  |                                           |                     |     | P                                              |                          |                                     | P + T                                                                                      |  |
| Type of weld                                          |                                           |                     |     | BW                                             |                          |                                     | BW                                                                                         |  |
| Assemblage type : Branch joint                        |                                           |                     |     | P1a                                            | P1b                      | P1c                                 | /                                                                                          |  |
| Weld details: gouging / backing                       |                                           | (A)                 |     | bs                                             |                          |                                     | ss, mb ; bs                                                                                |  |
| Parent metal group(s)                                 |                                           | CEN ISO TR 15608    |     | 1                                              |                          |                                     | (A) : Groups 1 to 11 CEN ISO/TR 15608                                                      |  |
| Filler metal type and designation See Note 1 overleaf |                                           | (A)                 | P   | T 42 2 P C 1 H 5                               |                          |                                     | R,P,V,W,Y,Z                                                                                |  |
| Filler material(s) group                              |                                           | (A)                 |     | FM1                                            |                          |                                     | FM1 - FM2                                                                                  |  |
| Shielding gas or flux                                 | EN ISO 14174 (flux)<br>EN ISO 14175 (gaz) | (A)                 |     | C1                                             |                          |                                     | Non essential variable                                                                     |  |
| Auxiliaries                                           |                                           | (A)                 |     | /                                              |                          |                                     | Non essential variable                                                                     |  |
| Parent metal Thickness (mm)                           |                                           |                     |     | /                                              |                          |                                     | /                                                                                          |  |
| Deposited metal thickness (mm)                        |                                           | (A)                 |     | 16                                             |                          |                                     | ≥ 3                                                                                        |  |
| Outside pipe diameter (mm)                            |                                           |                     |     | /                                              |                          |                                     | D ≥ 75 mm (Rotated) for PA and PB - D ≥ 500 mm (Fixed)                                     |  |
| Welding position                                      | EN ISO 6947                               |                     |     | PF                                             |                          |                                     | P.BW : Flat, Vertical Up<br>P.FW : /<br>T.BW : Flat, Vertical Up<br>T.FW : /<br>Branch : / |  |
| Type of tests                                         |                                           |                     |     | Performed and accepted                         |                          | Not performed                       |                                                                                            |  |
|                                                       |                                           |                     |     | Ass. 1                                         | Ass. Sup.                | Ass. 1                              | Ass. Sup.                                                                                  |  |
| Visual testing                                        |                                           |                     |     | <input checked="" type="checkbox"/>            | <input type="checkbox"/> | /                                   | /                                                                                          |  |
| Radiography (or Ultrasonic Testing)                   |                                           |                     |     | <input checked="" type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/>                                                        |  |
| Magnetic Particle Test                                |                                           |                     |     | <input type="checkbox"/>                       | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/>                                                        |  |
| Dye Penetrant Test                                    |                                           |                     |     | <input type="checkbox"/>                       | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/>                                                        |  |
| Macroscopic examination                               |                                           |                     |     | <input type="checkbox"/>                       | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/>                                                        |  |
| Fracture test                                         |                                           |                     |     | <input type="checkbox"/>                       | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/>                                                        |  |
| Bend test                                             |                                           |                     |     | <input type="checkbox"/>                       | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/>                                                        |  |
| Additional test(s)                                    |                                           |                     |     | <input type="checkbox"/>                       | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/>                                                        |  |

|           |                        |                                                                                                                          |               |                             |
|-----------|------------------------|--------------------------------------------------------------------------------------------------------------------------|---------------|-----------------------------|
| Issued at | Validity starting date | Valid until (date)                                                                                                       | Examiner Name | Issuer Name & Date of issue |
| Shanghai  | 11/19/2018             | 9.3 a <input type="checkbox"/><br>9.3 b <input checked="" type="checkbox"/><br>9.3 c <input type="checkbox"/> 11/18/2020 | WEITAO KE     | JIE NIE 12/21/2018          |



|                                                                                          |                                                                 |
|------------------------------------------------------------------------------------------|-----------------------------------------------------------------|
| <b>CERTIFICAT DE QUALIFICATION DE SOUDEUR</b><br><i>WELDER APPROVAL TEST CERTIFICATE</i> | <b>Certificat n° :</b> FRA-18-A12998<br><b>Certificate N° :</b> |
|                                                                                          | <b>N° enregistrement / Registration number</b> SY3d7QP          |

Certificate N° :

N° enregistrement / *Registration number* SY3d7QP

Prolongation for approval by Examiner or Examining Body (refer to § 9.3)

[illegible]

Tables 4 and 5 of § 5.6 :

The type of covering or flux cored wire used in the qualification test of welders for root run welding without backing (ss nb) is the type of covering or flux cored wire qualified for root run welding in production with no backing (ss nb).







## WELDER APPROVAL TEST CERTIFICATE IN ACCORDANCE WITH EN ISO 9606-1 : 2017



### Additional requirements :

DESIGNATION (A) EN ISO 9606-1 136 P BW FM1 P s 16 PF bs

WPS reference N° : PWPS-FCAW-002 Rev. 01

Sample identification : EN-004

Welder :  
Name : Yubin Wu  
First name : Yubin  
Date of birth : 09/01/1969  
Place of birth : Huaihua City, Hunan Province  
Employer : Zhejiang Jiangnan Steel Structure Co., Ltd  
Job Knowledge : ☐ Acceptable  
Supplementary Fillet Weld Test : ☐ Performed and acceptable

Identification : 433022196909010816  
Identification method : National ID Card

Welder number : JNGG-W04  
☒ Not tested  
☒ Not performed



| Qualification variables                               | Associated standard                       | Weld test details                              |                          |                          | Range of qualification (1)                                                                 |
|-------------------------------------------------------|-------------------------------------------|------------------------------------------------|--------------------------|--------------------------|--------------------------------------------------------------------------------------------|
|                                                       |                                           | Assembly 1 <input checked="" type="checkbox"/> |                          |                          |                                                                                            |
| Welding process(es)                                   | EN ISO 4063                               | Process                                        | (A)                      | 136                      | 136                                                                                        |
| Transfer mode                                         | EN ISO 4063                               | Process                                        | (A)                      | /                        | /                                                                                          |
| Current type and polarity                             |                                           | (A)                                            | DC                       | (+)                      | Non essential variable                                                                     |
| Product type : Plate (P) or pipe (T)                  |                                           |                                                |                          | P                        | P + T                                                                                      |
| Type of weld                                          |                                           |                                                |                          | BW                       | BW                                                                                         |
| Assemblage type : Branch joint                        |                                           | P1a                                            | P1b                      | P1c                      | /                                                                                          |
| Weld details: gouging / backing                       | (A)                                       | <input type="checkbox"/>                       | <input type="checkbox"/> | <input type="checkbox"/> | ss, mb ; bs                                                                                |
| Parent metal group(s)                                 | CEN ISO TR 15608                          |                                                |                          | 1                        | (A) : Groups 1 to 11 CEN ISO/TR 15608                                                      |
| Filler metal type and designation See Note 1 overleaf | (A)                                       | P                                              |                          | T 42 2 P C 1 H 5         | R,P,V,W,Y,Z                                                                                |
| Filler material(s) group                              | (A)                                       |                                                |                          | FM1                      | FM1 - FM2                                                                                  |
| Shielding gas or flux                                 | EN ISO 14174 (flux)<br>EN ISO 14175 (gaz) | (A)                                            |                          | C1                       | Non essential variable                                                                     |
| Auxiliaries                                           | (A)                                       |                                                |                          | /                        | Non essential variable                                                                     |
| Parent metal Thickness (mm)                           |                                           |                                                |                          | /                        | /                                                                                          |
| Deposited metal thickness (mm)                        | (A)                                       |                                                |                          | 16                       | ≥ 3                                                                                        |
| Outside pipe diameter (mm)                            |                                           |                                                |                          | /                        | D ≥ 75 mm (Rotated) for PA and PB - D ≥ 500 mm (Fixed)                                     |
| Welding position                                      | EN ISO 6947                               |                                                |                          | PF                       | P.BW : Flat, Vertical Up<br>P.FW : /<br>T.BW : Flat, Vertical Up<br>T.FW : /<br>Branch : / |

| Type of tests                       | Performed and accepted              |                          | Not performed                       |                                     |
|-------------------------------------|-------------------------------------|--------------------------|-------------------------------------|-------------------------------------|
|                                     | Ass. 1                              | Ass. Sup.                | Ass. 1                              | Ass. Sup.                           |
| Visual testing                      | <input checked="" type="checkbox"/> | <input type="checkbox"/> | /                                   | /                                   |
| Radiography (or Ultrasonic Testing) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Magnetic Particle Test              | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Dye Penetrant Test                  | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Macroscopic examination             | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Fracture test                       | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Bend test                           | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Additional test(s)                  | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |

| Issued at | Validity starting date | Valid until (date)                                                                                                       | Examiner Name | Issuer Name & Date of issue |
|-----------|------------------------|--------------------------------------------------------------------------------------------------------------------------|---------------|-----------------------------|
| Shanghai  | 11/19/2018             | 9.3 a <input type="checkbox"/><br>9.3 b <input checked="" type="checkbox"/><br>9.3 c <input type="checkbox"/> 11/18/2020 | WEITAO KE     | JIE NIE 12/21/2018          |



N° enregistrement / *Registration number* gkzlyan

**Note 1 :**  
Tables 4 and 5 of § 5.6 : The type of covering or flux cored wire used in the qualification test of welders for root run welding without backing (ss nb) is the type of covering or flux cored wire qualified for root run welding in production with no backing (ss nb).





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|                  |               |      |
|------------------|---------------|------|
| File N° :        | 6096224-1001  | Page |
| Certificate N° : | FRA-18-A13008 | 1/2  |

**QUALIFICATION TEST CERTIFICATE FOR WELDING OPERATORS OR WELD SETTERS IN ACCORDANCE WITH EN ISO 14732 : 2013**

Additional requirements :

WPS reference N° : PWPS-SAW-001 Rev. 01

Sample identification : EN-001

Employer : Zhejiang Jiangnan Steel Structure Co., Ltd

Welder / Operator :

Name : Xiaotao Zhang

Identification : 412726197906274158

First name : Xiaotao

Identification method : National ID Card

Date of birth : 06/27/1979

Place of birth : Zhoukou City, Henan Province

Operator number : JNGG-W01



Functional knowledge test (mandatory): Tested ☒

Job Knowledge :

Acceptable ☒

Not tested ☐

| Variables                        | Weld test details                                                                          | Approval and range of approval                                                  |
|----------------------------------|--------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
| Welding process(es):             | 121 TM                                                                                     | 121                                                                             |
| Welding equipment :              | ZX5-1000                                                                                   | Any appropriate welding equipment                                               |
| Welding Unit                     | ZX5-1000                                                                                   | /                                                                               |
| Details for mechanized welding   |                                                                                            |                                                                                 |
| Visual Control or remote control | Direct                                                                                     | Direct                                                                          |
| Automatic arc length control     | With                                                                                       | With                                                                            |
| Automatic joint tracking         | Without                                                                                    | With and Without                                                                |
| Welding Position                 | PA<br> | (P : BW) : Flat<br>(P : FW) : /<br>(T : BW) : Flat<br>(T : FW) : /<br>Branch: / |
| Single run or multi run per run  | Multi Run                                                                                  | Single and Multi run                                                            |
| Material Backing                 | Without                                                                                    | With and Without                                                                |
| Consumable insert                | Without                                                                                    | With and Without                                                                |
| Details for automatic welding    |                                                                                            |                                                                                 |
| Arc sensor control               | /                                                                                          | /                                                                               |
| Joint sensor                     | /                                                                                          | /                                                                               |
| Single run or multi run per run  | /                                                                                          | /                                                                               |
| Type of welding unit             | /                                                                                          | /                                                                               |

The approval is based on :

- welding procedure test according ISO 15614-X [see 4.1 a)] ☐
- preproduction welding test according ISO 15613 [see 4.1 b)] ☐
- standard test piece similar to ISO 9606-X [see 4.1 c)] ☒
- production test or production sample testing [see 4.1 d)] ☐

(1) The qualification range is provided for guidance, the standard is the only reference.

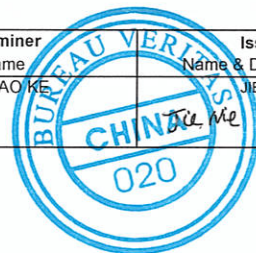
Results of the approval test see document No. (\*) :

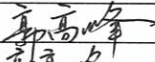
IR-INS-SH-18-281-KEWEITAO-VT & SPT-RT-181101

(\*) Append reference documents

| Issued at | Date of welding | Valid until (date) 5.3                                                                                           | Examiner<br>Name<br>WEITAO KE | Issuer<br>Name & Date of issue<br>JIE NIE<br>12/21/2018 |
|-----------|-----------------|------------------------------------------------------------------------------------------------------------------|-------------------------------|---------------------------------------------------------|
| Shanghai  | 11/19/2018      | 5.3 a* <input type="checkbox"/><br>5.3 b* <input checked="" type="checkbox"/><br>5.3 c* <input type="checkbox"/> |                               |                                                         |

5.3 a\*, b\*, c\* : see next page

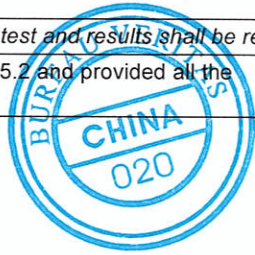


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|---------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------|----------------------------------------------------------------------------------------------------------|-----------|----------------------------------------|
| <b>APPROVAL TEST CERTIFICATE FOR WELDING<br/>OPERATOR OR WELD SETTERS</b>                               |                                                                                   |                   | Certificate N° :<br>FRA-18-A13008                                                                        |           | Page<br><br>2/2                        |
| Re-validation for qualification by employer or welding coordinator for the following 6 months (see 5.2) |                                                                                   |                   | Prolongation for approval by manufacturer or examining body for the following 3 years (see clause 5.3 b) |           |                                        |
| Date                                                                                                    | Signature                                                                         | Position or title | Date                                                                                                     | Signature | Position or title (Stamp of test body) |
| 2019.5.19                                                                                               |  | IWE               |                                                                                                          |           |                                        |
| 2019.11.18                                                                                              |  | IWE               |                                                                                                          |           |                                        |
|                                                                                                         |                                                                                   |                   |                                                                                                          |           |                                        |
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|                                                                                                         |                                                                                   |                   |                                                                                                          |           |                                        |
|                                                                                                         |                                                                                   |                   |                                                                                                          |           |                                        |
|                                                                                                         |                                                                                   |                   |                                                                                                          |           |                                        |
|                                                                                                         |                                                                                   |                   |                                                                                                          |           |                                        |

\*a) The welding operator or weld setter shall be retested every 6 year.

\*b) Every three years, two welds made during the last six months of the validity period shall be test and results shall be recorded.

\*c) A qualification for any certificate shall be valid as long as it is confirmed in accordance with 5.2 and provided all the requirements are fulfilled





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No. 1288, Waima Road, Huangpu  
District, Shanghai City, China  
200011 Shanghai City  
Phone : 021-23190001



|                  |               |      |
|------------------|---------------|------|
| File N° :        | 6096224-1001  | Page |
| Certificate N° : | FRA-18-A13009 | 1/2  |

# QUALIFICATION TEST CERTIFICATE FOR WELDING OPERATORS OR WELD SETTERS IN ACCORDANCE WITH EN ISO 14732 : 2013

Additional requirements :

WPS reference N° : PWPS-SAW-001 Rev. 01

Sample identification : EN-013

Employer : Zhejiang Jiangnan Steel Structure Co., Ltd

Welder / Operator :

Name : Guoqiang Lang

Identification : 410223198402203512

First name : Guoqiang

Identification method : National ID Card

Date of birth : 02/20/1984

Place of birth : Weishi County, Henan Province

Operator number : JNGG-W013



Functional knowledge test (mandatory): Tested ☒

Job Knowledge :

Acceptable ☒

Not tested ☐

| Variables                        | Weld test details                                                                          | Approval and range of approval                                                  |
|----------------------------------|--------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
| Welding process(es):             | 121 TM                                                                                     | 121                                                                             |
| Welding equipment :              | ZX5-1000                                                                                   | Any appropriate welding equipment                                               |
| Welding Unit                     | ZX5-1000                                                                                   | /                                                                               |
| Details for mechanized welding   |                                                                                            |                                                                                 |
| Visual Control or remote control | Direct                                                                                     | Direct                                                                          |
| Automatic arc length control     | With                                                                                       | With                                                                            |
| Automatic joint tracking         | Without                                                                                    | With and Without                                                                |
| Welding Position                 | PA<br> | (P : BW) : Flat<br>(P : FW) : /<br>(T : BW) : Flat<br>(T : FW) : /<br>Branch: / |
| Single run or multi run per run  | Multi Run                                                                                  | Single and Multi run                                                            |
| Material Backing                 | Without                                                                                    | With and Without                                                                |
| Consumable insert                | Without                                                                                    | With and Without                                                                |
| Details for automatic welding    |                                                                                            |                                                                                 |
| Arc sensor control               | /                                                                                          | /                                                                               |
| Joint sensor                     | /                                                                                          | /                                                                               |
| Single run or multi run per run  | /                                                                                          | /                                                                               |
| Type of welding unit             | /                                                                                          | /                                                                               |

The approval is based on :

- welding procedure test according ISO 15614-X [see 4.1 a)] ☐
- preproduction welding test according ISO 15613 [see 4.1 b)] ☐
- standard test piece similar to ISO 9606-X [see 4.1 c)] ☒
- production test or production sample testing [see 4.1 d)] ☐

(1) The qualification range is provided for guidance, the standard is the only reference.

Results of the approval test see document No. (\*) :

IR-INS-SH-18-281-KEWEITAO-VT & SPT-RT-181101.

(\*) Append reference documents

| Issued at | Date of welding | Valid until (date) 5.3                                                                                           | Examiner<br>Name<br>WEITAO KE | Issuer<br>Name & Date of issue<br>JIE NIE<br>12/21/2018 |
|-----------|-----------------|------------------------------------------------------------------------------------------------------------------|-------------------------------|---------------------------------------------------------|
| Shanghai  | 11/19/2018      | 5.3 a* <input type="checkbox"/><br>5.3 b* <input checked="" type="checkbox"/><br>5.3 c* <input type="checkbox"/> |                               |                                                         |
|           |                 | 11/18/2021                                                                                                       |                               |                                                         |

5.3 a\*, b\*, c\* : see next page





## WELDER APPROVAL TEST CERTIFICATE IN ACCORDANCE WITH EN ISO 9606-1 : 2017

### Additional requirements :

DESIGNATION (A) EN ISO 9606-1 111 P BW FM1 B s 16 PF bs

WPS reference N° : PWPS-SMAW-002 Rev. 01

Sample identification : EN-012



Welder :  
Name : Yunkui Wang  
First name : Yunkui  
Date of birth : 11/01/1972  
Place of birth : Fengyang County, Anhui Province

Identification : 341126197211011210  
Identification method : National ID Card



Employer : Zhejiang Jiangnan Steel Structure Co., Ltd  
Job Knowledge : ☐ Acceptable  
Supplementary Fillet Weld Test : ☐ Performed and acceptable

Welder number : JNGG-W011  
☒ Not tested  
☒ Not performed

| Qualification variables                               |                                           | Associated standard |     | Weld test details                              |                              |                                     | Range of qualification (1)                                                                 |  |  |
|-------------------------------------------------------|-------------------------------------------|---------------------|-----|------------------------------------------------|------------------------------|-------------------------------------|--------------------------------------------------------------------------------------------|--|--|
|                                                       |                                           |                     |     | Assembly 1 <input checked="" type="checkbox"/> |                              |                                     | (1) The qualification range is provided for guidance, the standard is the only reference.  |  |  |
| Welding process(es)                                   | EN ISO 4063                               | Process             | (A) | 111                                            |                              |                                     | 111                                                                                        |  |  |
| Transfer mode                                         | EN ISO 4063                               | Process             | (A) | /                                              |                              |                                     | /                                                                                          |  |  |
| Current type and polarity                             |                                           |                     | (A) | DC                                             | (+) (+)                      |                                     | Non essential variable                                                                     |  |  |
| Product type : Plate (P) or pipe (T)                  |                                           |                     |     | P                                              |                              |                                     | P + T                                                                                      |  |  |
| Type of weld                                          |                                           |                     |     | BW                                             |                              |                                     | BW                                                                                         |  |  |
| Assemblage type : Branch joint                        |                                           |                     |     | P1a <input type="checkbox"/>                   | P1b <input type="checkbox"/> | P1c <input type="checkbox"/>        | /                                                                                          |  |  |
| Weld details: gouging / backing                       |                                           | (A)                 |     | bs                                             |                              |                                     | ss, mb ; bs                                                                                |  |  |
| Parent metal group(s)                                 | CEN ISO TR 15608                          |                     |     | 1                                              |                              |                                     | (A) : Groups 1 to 11 CEN ISO/TR 15608                                                      |  |  |
| Filler metal type and designation See Note 1 overleaf |                                           | (A)                 | B   | E 42 3 B 1 2 H 10                              |                              |                                     | B, A, RA, RB, RC, RR, R, 15, 16, 18, 28, 45, 48, 03, 13, 14, 19, 20, 24, 27                |  |  |
| Filler material(s) group                              |                                           | (A)                 |     | FM1                                            |                              |                                     | FM1 - FM2                                                                                  |  |  |
| Shielding gas or flux                                 | EN ISO 14174 (flux)<br>EN ISO 14175 (gaz) | (A)                 |     | /                                              |                              |                                     | Non essential variable                                                                     |  |  |
| Auxiliaries                                           |                                           | (A)                 |     | /                                              |                              |                                     | Non essential variable                                                                     |  |  |
| Parent metal Thickness (mm)                           |                                           |                     |     | /                                              |                              |                                     | /                                                                                          |  |  |
| Deposited metal thickness (mm)                        |                                           | (A)                 |     | 16                                             |                              |                                     | ≥ 3                                                                                        |  |  |
| Outside pipe diameter (mm)                            |                                           |                     |     | /                                              |                              |                                     | D ≥ 75 mm (Rotated) for PA and PB - D ≥ 500 mm (Fixed)                                     |  |  |
| Welding position                                      | EN ISO 6947                               |                     |     | PF                                             |                              |                                     | P.BW : Flat, Vertical Up<br>P.FW : /<br>T.BW : Flat, Vertical Up<br>T.FW : /<br>Branch : / |  |  |
| Type of tests                                         |                                           |                     |     | Performed and accepted                         |                              | Not performed                       |                                                                                            |  |  |
|                                                       |                                           |                     |     | Ass. 1                                         | Ass. Sup.                    | Ass. 1                              | Ass. Sup.                                                                                  |  |  |
| Visual testing                                        |                                           |                     |     | <input checked="" type="checkbox"/>            | <input type="checkbox"/>     | /                                   | /                                                                                          |  |  |
| Radiography (or Ultrasonic Testing)                   |                                           |                     |     | <input checked="" type="checkbox"/>            | <input type="checkbox"/>     | <input type="checkbox"/>            | <input checked="" type="checkbox"/>                                                        |  |  |
| Magnetic Particle Test                                |                                           |                     |     | <input type="checkbox"/>                       | <input type="checkbox"/>     | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/>                                                        |  |  |
| Dye Penetrant Test                                    |                                           |                     |     | <input type="checkbox"/>                       | <input type="checkbox"/>     | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/>                                                        |  |  |
| Macroscopic examination                               |                                           |                     |     | <input type="checkbox"/>                       | <input type="checkbox"/>     | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/>                                                        |  |  |
| Fracture test                                         |                                           |                     |     | <input type="checkbox"/>                       | <input type="checkbox"/>     | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/>                                                        |  |  |
| Bend test                                             |                                           |                     |     | <input type="checkbox"/>                       | <input type="checkbox"/>     | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/>                                                        |  |  |
| Additional test(s)                                    |                                           |                     |     | <input type="checkbox"/>                       | <input type="checkbox"/>     | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/>                                                        |  |  |

|           |                        |                                                                                                                          |               |                             |
|-----------|------------------------|--------------------------------------------------------------------------------------------------------------------------|---------------|-----------------------------|
| Issued at | Validity starting date | Valid until (date)                                                                                                       | Examiner Name | Issuer Name & Date of issue |
| Shanghai  | 11/19/2018             | 9.3 a <input type="checkbox"/><br>9.3 b <input checked="" type="checkbox"/><br>9.3 c <input type="checkbox"/> 11/18/2020 | WEITAO KE     | JIE NIE 12/23/2018          |



Office : PCA-E-SH  
No.1288, Waima Road, Huangpu  
District, Shanghai City, China.  
200011 Shanghai City  
Phone : 021-23190001



|                  |               |      |
|------------------|---------------|------|
| File N° :        | 6096224-1001  | Page |
| Certificate N° : | FRA-18-A13010 | 1/2  |

# QUALIFICATION TEST CERTIFICATE FOR WELDING OPERATORS OR WELD SETTERS IN ACCORDANCE WITH EN ISO 14732 : 2013

Additional requirements :

WPS reference N° : PWPS-SAW-001 Rev. 01

Sample identification : EN-002

Employer : Zhejiang Jiangnan Steel Structure Co., Ltd

Welder / Operator :

Name : Lianbing Zhao

First name : Lianbing

Date of birth : 11/10/1986

Place of birth : Tengzhou City, Shandong Provi

Operator number : JNGG-W02

Identification : 370481198611103851

Identification method : National ID Card



Functional knowledge test (mandatory): Tested ☒

Job Knowledge : Acceptable ☒ Not tested ☐

| Variables                        | Weld test details                                                                          | Approval and range of approval                                                  |
|----------------------------------|--------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
| Welding process(es):             | 121 TM                                                                                     | 121                                                                             |
| Welding equipment :              | ZX5-1000                                                                                   | Any appropriate welding equipment                                               |
| Welding Unit                     | ZX5-1000                                                                                   | /                                                                               |
| Details for mechanized welding   |                                                                                            |                                                                                 |
| Visual Control or remote control | Direct                                                                                     | Direct                                                                          |
| Automatic arc length control     | With                                                                                       | With                                                                            |
| Automatic joint tracking         | Without                                                                                    | With and Without                                                                |
| Welding Position                 | PA<br> | (P : BW) : Flat<br>(P : FW) : /<br>(T : BW) : Flat<br>(T : FW) : /<br>Branch: / |
| Single run or multi run per run  | Multi Run                                                                                  | Single and Multi run                                                            |
| Material Backing                 | Without                                                                                    | With and Without                                                                |
| Consumable insert                | Without                                                                                    | With and Without                                                                |
| Details for automatic welding    |                                                                                            |                                                                                 |
| Arc sensor control               | /                                                                                          | /                                                                               |
| Joint sensor                     | /                                                                                          | /                                                                               |
| Single run or multi run per run  | /                                                                                          | /                                                                               |
| Type of welding unit             | /                                                                                          | /                                                                               |

The approval is based on :

- welding procedure test according ISO 15614-X [see 4.1 a)] ☐
- preproduction welding test according ISO 15613 [see 4.1 b)] ☐
- standard test piece similar to ISO 9606-X [see 4.1 c)] ☒
- production test or production sample testing [see 4.1 d)] ☐

(1) The qualification range is provided for guidance, the standard is the only reference.

Results of the approval test see document No. (\*) :

IR-INS-SH-18-281-KEWEITAO-VT & SPT-RT-181101.

(\*) Append reference documents

| Issued at | Date of welding | Valid until (date) 5.3                                                                                           | Examiner Name | Issuer Name & Date of issue |
|-----------|-----------------|------------------------------------------------------------------------------------------------------------------|---------------|-----------------------------|
| Shanghai  | 11/19/2018      | 5.3 a* <input type="checkbox"/><br>5.3 b* <input checked="" type="checkbox"/><br>5.3 c* <input type="checkbox"/> | WEITAO KE     | JIE NIE 12/21/2018          |

5.3 a\*, b\*, c\* : see next page









## WELDER APPROVAL TEST CERTIFICATE IN ACCORDANCE WITH EN ISO 9606-1 : 2017

### Additional requirements :

DESIGNATION (A) EN ISO 9606-1 111 P BW FM1 B s 25 PF bs

WPS reference N° : PWPS-SMAW-001 Rev. 01

Sample identification : EN-007



Welder : Name : Xiaotao Zhang  
First name : Xiaotao  
Date of birth : 06/27/1979  
Place of birth : Zhoukou City, Henan Province  
Employer : Zhejiang Jiangnan Steel Structure Co., Ltd  
Job Knowledge : ☐ Acceptable  
Supplementary Fillet Weld Test : ☐ Performed and acceptable

Identification : 412726197906274158  
Identification method : National ID Card

Welder number : JNGG-W01  
☒ Not tested  
☒ Not performed



| Qualification variables                               |                                           | Associated standard                                                                 |     | Weld test details                              |                                 |                                 | Range of qualification (1)                                                                 |  |
|-------------------------------------------------------|-------------------------------------------|-------------------------------------------------------------------------------------|-----|------------------------------------------------|---------------------------------|---------------------------------|--------------------------------------------------------------------------------------------|--|
|                                                       |                                           |                                                                                     |     | Assembly 1 <input checked="" type="checkbox"/> |                                 |                                 | (1) The qualification range is provided for guidance, the standard is the only reference.  |  |
| Welding process(es)                                   | EN ISO 4063                               | Process                                                                             | (A) | 111                                            |                                 |                                 | 111                                                                                        |  |
| Transfer mode                                         | EN ISO 4063                               | Process                                                                             | (A) | /                                              |                                 |                                 | /                                                                                          |  |
| Current type and polarity                             |                                           |                                                                                     | (A) | DC                                             | (+)                             |                                 | Non essential variable                                                                     |  |
| Product type : Plate (P) or pipe (T)                  |                                           |                                                                                     |     | P                                              |                                 |                                 | P + T                                                                                      |  |
| Type of weld                                          |                                           |                                                                                     |     | BW                                             |                                 |                                 | BW                                                                                         |  |
| Assemblage type : Branch joint                        |                                           |                                                                                     |     | P1a<br><input type="checkbox"/>                | P1b<br><input type="checkbox"/> | P1c<br><input type="checkbox"/> | /                                                                                          |  |
| Weld details: gouging / backing                       |                                           |                                                                                     | (A) | bs                                             |                                 |                                 | ss, mb ; bs                                                                                |  |
| Parent metal group(s)                                 |                                           | CEN ISO TR 15608                                                                    |     | 1<br>/                                         |                                 |                                 | (A) : Groups 1 to 11 CEN ISO/TR 15608                                                      |  |
| Filler metal type and designation See Note 1 overleaf |                                           |                                                                                     | (A) | B                                              | E 42 3 B 1 2 H 10               |                                 | B,A,RA,RB,RC,RR,R,15,16,18,28,45,48,03,13,14,19,20,24,27                                   |  |
| Filler material(s) group                              |                                           |                                                                                     | (A) | FM1                                            |                                 |                                 | FM1 - FM2                                                                                  |  |
| Shielding gas or flux                                 | EN ISO 14174 (flux)<br>EN ISO 14175 (gaz) |                                                                                     | (A) | /                                              |                                 |                                 | Non essential variable                                                                     |  |
| Auxiliaries                                           |                                           |                                                                                     | (A) | /                                              |                                 |                                 | Non essential variable                                                                     |  |
| Parent metal Thickness (mm)                           |                                           |                                                                                     |     | /                                              |                                 |                                 | /                                                                                          |  |
| Deposited metal thickness (mm)                        |                                           |                                                                                     | (A) | 25                                             |                                 |                                 | ≥ 3                                                                                        |  |
| Outside pipe diameter (mm)                            |                                           |                                                                                     |     | /                                              |                                 |                                 | D ≥75 mm (Rotated) for PA and PB - D ≥500 mm (Fixed)                                       |  |
| Welding position                                      | EN ISO 6947                               |  |     | PF                                             |                                 |                                 | P.BW : Flat, Vertical Up<br>P.FW : /<br>T.BW : Flat, Vertical Up<br>T.FW : /<br>Branch : / |  |

| Type of tests                       | Performed and accepted              |                          | Not performed                       |                                     |
|-------------------------------------|-------------------------------------|--------------------------|-------------------------------------|-------------------------------------|
|                                     | Ass. 1                              | Ass. Sup.                | Ass. 1                              | Ass. Sup.                           |
| Visual testing                      | <input checked="" type="checkbox"/> | <input type="checkbox"/> | /                                   | /                                   |
| Radiography (or Ultrasonic Testing) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Magnetic Particle Test              | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Dye Penetrant Test                  | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Macroscopic examination             | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Fracture test                       | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Bend test                           | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Additional test(s)                  | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |

| Issued at | Validity starting date | Valid until (date)                                                                                                       | Examiner Name | Issuer Name & Date of issue |
|-----------|------------------------|--------------------------------------------------------------------------------------------------------------------------|---------------|-----------------------------|
| Shanghai  | 11/19/2018             | 9.3 a <input type="checkbox"/><br>9.3 b <input checked="" type="checkbox"/><br>9.3 c <input type="checkbox"/> 11/18/2020 | WEITAO KE     | JIE NIE 12/23/2018          |



|                                                                                          |                                                                 |
|------------------------------------------------------------------------------------------|-----------------------------------------------------------------|
| <b>CERTIFICAT DE QUALIFICATION DE SOUDEUR</b><br><b>WELDER APPROVAL TEST CERTIFICATE</b> | <b>Certificat n° :</b> FRA-18-A13111<br><b>Certificate N° :</b> |
|                                                                                          | <b>N° enregistrement / Registration number</b> YLBe1Cn          |

*Certificate N° :*

N° enregistrement / *Registration number* YLBe1Cn

Prolongation for approval by Examiner or Examining Body (refer to § 9.3)

[illegible]

**Note 1:**  
Tables 4 and 5 of § 5.6: The type of covering or flux cored wire used in the qualification test of welders for root run welding without backing (ss nb) is the type of covering or flux cored wire qualified for root run welding in production with no backing (ss nb).

The type of covering or flux cored wire used in the qualification test of welders for root run welding without backing (ss nb) is the type of covering or flux cored wire qualified for root run welding in production with no backing (ss nb).







## WELDER APPROVAL TEST CERTIFICATE IN ACCORDANCE WITH EN ISO 9606-1 : 2017

### Additional requirements :

DESIGNATION (A) EN ISO 9606-1 111 P BW FM1 B s 16 PF bs

WPS reference N° : PWPS-SMAW-002 Rev. 01

Sample identification : EN-018



Welder :  
Name : Shiwei Yu  
First name : Shiwei  
Date of birth : 06/16/1986  
Place of birth : Puyang County, Henan Province  
Employer : Zhejiang Jiangnan Steel Structure Co., Ltd  
Job Knowledge : ☐ Acceptable  
Supplementary Fillet Weld Test : ☐ Performed and acceptable

Identification : 410928198606162417  
Identification method : National ID Card

Welder number : JNGG-W017  
☒ Not tested  
☒ Not performed



| Qualification variables                               | Associated standard                       | Weld test details                              |     |                   | Range of qualification (1)                                                                 |
|-------------------------------------------------------|-------------------------------------------|------------------------------------------------|-----|-------------------|--------------------------------------------------------------------------------------------|
|                                                       |                                           | Assembly 1 <input checked="" type="checkbox"/> |     |                   |                                                                                            |
| Welding process(es)                                   | EN ISO 4063                               | Process                                        | (A) | 111               | 111                                                                                        |
| Transfer mode                                         | EN ISO 4063                               | Process                                        | (A) | /                 | /                                                                                          |
| Current type and polarity                             |                                           | (A)                                            | DC  | (+)               | Non essential variable                                                                     |
| Product type : Plate (P) or pipe (T)                  |                                           |                                                |     | P                 | P + T                                                                                      |
| Type of weld                                          |                                           |                                                |     | BW                | BW                                                                                         |
| Assemblage type : Branch joint                        |                                           | P1a                                            | P1b | P1c               | /                                                                                          |
| Weld details: gouging / backing                       | (A)                                       |                                                |     | bs                | ss, mb ; bs                                                                                |
| Parent metal group(s)                                 | CEN ISO TR 15608                          |                                                |     | 1                 | (A) : Groups 1 to 11 CEN ISO/TR 15608                                                      |
| Filler metal type and designation See Note 1 overleaf | (A)                                       | B                                              |     | E 42 3 B 1 2 H 10 | B, A, RA, RB, RC, RR, R, 15, 16, 18, 28, 45, 48, 03, 13, 14, 19, 20, 24, 27                |
| Filler material(s) group                              | (A)                                       |                                                |     | FM1               | FM1 - FM2                                                                                  |
| Shielding gas or flux                                 | EN ISO 14174 (flux)<br>EN ISO 14175 (gaz) | (A)                                            |     | /                 | Non essential variable                                                                     |
| Auxiliaries                                           | (A)                                       |                                                |     | /                 | Non essential variable                                                                     |
| Parent metal Thickness (mm)                           |                                           |                                                |     | /                 | /                                                                                          |
| Deposited metal thickness (mm)                        | (A)                                       |                                                |     | 16                | ≥ 3                                                                                        |
| Outside pipe diameter (mm)                            |                                           |                                                |     | /                 | D ≥ 75 mm (Rotated) for PA and PB - D ≥ 500 mm (Fixed)                                     |
| Welding position                                      | EN ISO 6947                               |                                                |     | PF                | P.BW : Flat, Vertical Up<br>P.FW : /<br>T.BW : Flat, Vertical Up<br>T.FW : /<br>Branch : / |

| Type of tests                       | Performed and accepted              |                          | Not performed                       |                                     |
|-------------------------------------|-------------------------------------|--------------------------|-------------------------------------|-------------------------------------|
|                                     | Ass. 1                              | Ass. Sup.                | Ass. 1                              | Ass. Sup.                           |
| Visual testing                      | <input checked="" type="checkbox"/> | <input type="checkbox"/> | /                                   | /                                   |
| Radiography (or Ultrasonic Testing) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Magnetic Particle Test              | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Dye Penetrant Test                  | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Macroscopic examination             | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Fracture test                       | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Bend test                           | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Additional test(s)                  | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |

| Issued at | Validity starting date | Valid until (date)                                                                                                       | Examiner Name | Issuer Name & Date of issue |
|-----------|------------------------|--------------------------------------------------------------------------------------------------------------------------|---------------|-----------------------------|
| Shanghai  | 11/19/2018             | 9.3 a <input type="checkbox"/><br>9.3 b <input checked="" type="checkbox"/><br>9.3 c <input type="checkbox"/> 11/18/2020 | WEITAO KE     | JIE NIE 12/23/2018          |



|                                                                                          |                                                                 |
|------------------------------------------------------------------------------------------|-----------------------------------------------------------------|
| <b>CERTIFICAT DE QUALIFICATION DE SOUDEUR</b><br><b>WELDER APPROVAL TEST CERTIFICATE</b> | <b>Certificat n° :</b> FRA-18-A13113<br><b>Certificate N° :</b> |
|                                                                                          | <b>N° enregistrement / Registration number</b> dY6toj1          |

Certificate N° :

N° enregistrement / *Registration number* dY6toj1

**Prolongation for approval by Examiner or Examining Body (refer to § 9.3)**

[illegible]

**Note 1:**  
Tables 4 and 5 of § 5.6: The type of covering or flux cored wire used in the qualification test of welders for root run welding without backing (ss nb) is the type of covering or flux cored wire qualified for root run welding in production with no backing (ss nb).

The type of covering or flux cored wire used in the qualification test of welders for root run welding without backing (ss nb) is the type of covering or flux cored wire qualified for root run welding in production with no backing (ss nb).







## WELDER APPROVAL TEST CERTIFICATE IN ACCORDANCE WITH EN ISO 9606-1 : 2017

### Additional requirements :

DESIGNATION (A) EN ISO 9606-1 136 P BW FM1 P s 16 PF bs

WPS reference N° : PWPS-FCAW-002 Rev. 01

Sample identification : EN-015



Welder :  
Name : Chengyuan Xu  
First name : Chengyuan  
Date of birth : 02/03/1987  
Place of birth : Xiao County, Anhui Province  
Employer : Zhejiang Jiangnan Steel Structure Co., Ltd  
Job Knowledge : ☐ Acceptable  
Supplementary Fillet Weld Test : ☐ Performed and acceptable

Identification : 342222198702032839  
Identification method : National ID Card

Welder number : JNGG-W015  
☒ Not tested  
☒ Not performed



| Qualification variables                               |                                           | Associated standard |     | Weld test details                              |         |     | Range of qualification (1)                                                                 |  |
|-------------------------------------------------------|-------------------------------------------|---------------------|-----|------------------------------------------------|---------|-----|--------------------------------------------------------------------------------------------|--|
|                                                       |                                           |                     |     | Assembly 1 <input checked="" type="checkbox"/> |         |     | (1) The qualification range is provided for guidance, the standard is the only reference.  |  |
| Welding process(es)                                   | EN ISO 4063                               | Process             | (A) | 136                                            |         |     | 136                                                                                        |  |
| Transfer mode                                         | EN ISO 4063                               | Process             | (A) | /                                              |         |     | /                                                                                          |  |
| Current type and polarity                             |                                           |                     | (A) | DC                                             | (+) (+) |     | Non essential variable                                                                     |  |
| Product type : Plate (P) or pipe (T)                  |                                           |                     |     | P                                              |         |     | P + T                                                                                      |  |
| Type of weld                                          |                                           |                     |     | BW                                             |         |     | BW                                                                                         |  |
| Assemblage type : Branch joint                        |                                           |                     |     | P1a                                            | P1b     | P1c | /                                                                                          |  |
| Weld details: gouging / backing                       |                                           | (A)                 |     | bs                                             |         |     | ss, mb ; bs                                                                                |  |
| Parent metal group(s)                                 |                                           | CEN ISO TR 15608    |     | /                                              |         |     | (A) : Groups 1 to 11 CEN ISO/TR 15608                                                      |  |
| Filler metal type and designation See Note 1 overleaf |                                           | (A)                 | P   | T 422 P C 1 H 5                                |         |     | R,P,V,W,Y,Z                                                                                |  |
| Filler material(s) group                              |                                           | (A)                 |     | FM1                                            |         |     | FM1 - FM2                                                                                  |  |
| Shielding gas or flux                                 | EN ISO 14174 (flux)<br>EN ISO 14175 (gaz) | (A)                 |     | C1                                             |         |     | Non essential variable                                                                     |  |
| Auxiliaries                                           |                                           | (A)                 |     | /                                              |         |     | Non essential variable                                                                     |  |
| Parent metal Thickness (mm)                           |                                           |                     |     | /                                              |         |     | /                                                                                          |  |
| Deposited metal thickness (mm)                        |                                           | (A)                 |     | 16                                             |         |     | ≥ 3                                                                                        |  |
| Outside pipe diameter (mm)                            |                                           |                     |     | /                                              |         |     | D ≥ 75 mm (Rotated) for PA and PB - D ≥ 500 mm (Fixed)                                     |  |
| Welding position                                      | EN ISO 6947                               |                     |     | PF                                             |         |     | P.BW : Flat, Vertical Up<br>P.FW : /<br>T.BW : Flat, Vertical Up<br>T.FW : /<br>Branch : / |  |

| Type of tests                       | Performed and accepted              |                          | Not performed                       |                                     |
|-------------------------------------|-------------------------------------|--------------------------|-------------------------------------|-------------------------------------|
|                                     | Ass. 1                              | Ass. Sup.                | Ass. 1                              | Ass. Sup.                           |
| Visual testing                      | <input checked="" type="checkbox"/> | <input type="checkbox"/> | /                                   | /                                   |
| Radiography (or Ultrasonic Testing) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Magnetic Particle Test              | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Dye Penetrant Test                  | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Macroscopic examination             | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Fracture test                       | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Bend test                           | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Additional test(s)                  | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |

|           |                        |                                                                                                                          |               |                             |
|-----------|------------------------|--------------------------------------------------------------------------------------------------------------------------|---------------|-----------------------------|
| Issued at | Validity starting date | Valid until (date)                                                                                                       | Examiner Name | Issuer Name & Date of issue |
| Shanghai  | 11/19/2018             | 9.3 a <input type="checkbox"/><br>9.3 b <input checked="" type="checkbox"/><br>9.3 c <input type="checkbox"/> 11/18/2020 | WEITAO KE     | JIE NIE 12/21/2018          |



**CERTIFICAT DE QUALIFICATION DE SOUDEUR**  
*WELDER APPROVAL TEST CERTIFICATE*

**Certificate N° :**

N° enregistrement / *Registration number* tdWENXV

**Prolongation for approval by Employer or the welding Coordinator for the following 6 months (refer to § 9.2)**

**Prolongation for approval by Examiner or Examining Body (refer to § 9.3)**

[illegible]

**Note 1 :**

Tables 4 and 5 of § 5.6 :

The type of covering or flux cored wire used in the qualification test of welders for root run welding without backing (ss nb) is the type of covering or flux cored wire qualified for root run welding in production with no backing (ss nb).

