

成品檢驗 Product Inspection

品管人員負責核對工作單影印本，與成品規格數量一致後，
依適用之檢驗標準檢查尺寸是否符合要求，
並依工作單號及項次每批至少檢查，目視100%、尺寸10%、CNC10%、Machine10%
品檢人員跟據加工表面及尺寸之均一程度，若有必要得實施全數檢查。

PMI、目視、尺寸與標準公差



Measure Window - Elements: Concentration - [Measure-Result] Window

File Edit Measure Program Sorting Instrument Extras View Help

Sample ID: A182-F304 Grade:

C	Si	Mn	P	S	Cr	Mo	Ni	Al	Cu
0.045	0.379	0.94	<0.003	<0.002	16.20	0.434	8.74	0.040	0.168
0.045	0.379	0.94	<0.003	<0.002	16.20	0.434	8.74	0.040	0.168
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Ca	Nb	Ti	V	W	Pb	Sa	Zr	Ce	B
0.297	0.013	0.012	0.041	0.291	<0.004	<0.002	0.004		<0.001
0.297	0.013	0.012	0.041	0.291	<0.004	<0.002	0.004		<0.001
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		0.000
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		0.000
Fe	70.3								

File Edit Measure Program Sorting Instrument Extras View Help



ASME B16.5、
ASME B16.36、
ASME B16.47、
MSS-SP44、
API、
JIS、
DIN、
或特殊如圖加工 AS DWG

如圖AS DWG

成品檢驗

Product Inspection

打鋼印

Product Marking

輓字機



**A961鋼製法蘭鍛造管配件通用要求
製造廠需標記在每個鍛件上**

標誌識別目的：

**證明該部件以按照標準製造取樣
及試驗且結果以確認符合製造標準**

**In addition to the marking requirements of
Specification A961,
manufacturer's name (see Note 2) or symbol
shall be permanently marked on each forging.**

**For purposes of identification marking, the
manufacturer considered the organization that
certifies the piping component was
manufactured, sampled, and tested in
accordance with this specification and the
results have been determined to meet the
requirements of this specification**



成品檢驗
Product Inspection
打鋼印
Product Marking



MSS SP-25閥門、管件、法蘭和管接頭的標準標記方法
在不損壞鍛件的部位打上標誌

製造商的名稱或商標

IG

材料標示

A182-F304L

符合 ASME

B16

尺寸

4"

額定值標示

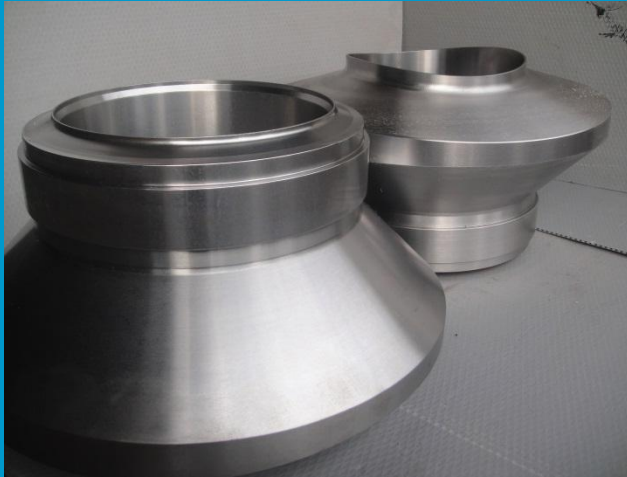
150 LB

熔煉標誌(爐號)

SA2497

成品檢驗 Product Inspection

特殊製品 Special Product



成品檢驗 Product Inspection

970X718X240L SA 182-F304
NOZZLE

特殊製品
Special Product



成品檢驗(非破壞檢測) Inspection and Test

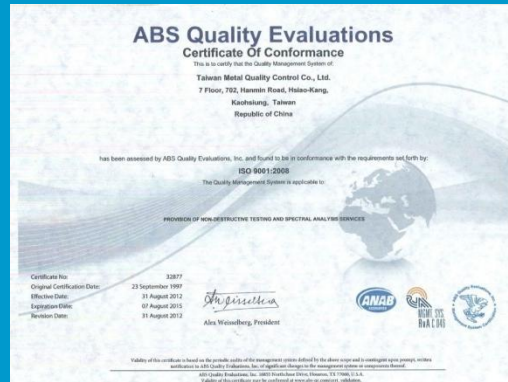
台灣金屬材料品管有限公司

統証檢驗有限公司

TAF 全國認證基金會
 檢測實驗室1248



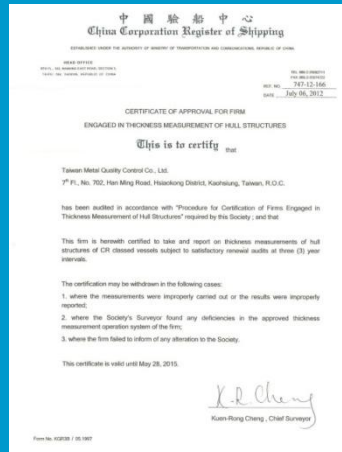
美國驗船協會
 American Bureau of Shipping



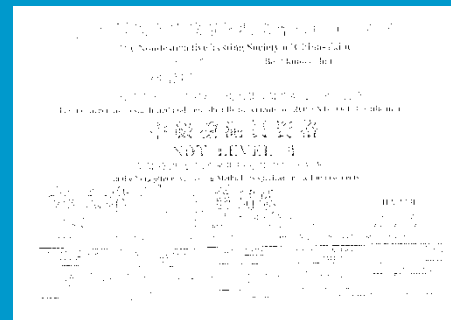
英國勞氏驗船協會
 Lloyd's Register of Shipping



中國驗船中心
 China Corporation Register of Shipping



ISO 9001



董事長
 陳介山

K.R. Cheng
 Kuen-Rong Cheng, Chief Surveyor

成品檢驗

Product Inspection

成品檢驗(非破壞檢測 Inspection and Test)

液滲PT檢測



磁粒MT檢測



超音波UT檢測



防鏽處理

Corrosion Protection

防鏽處理

成品表面應先前處理，表面不得有鐵鏽、鐵渣、灰塵、油漬，再行防鏽作業。



將防鏽漆充份攪拌均勻，均勻噴灑或塗在法蘭上使其在空氣中自然晾乾。



成品防鏽完成後，應檢視是否有浸漬不到之處或有流涕之現象發生，鍍層是否均勻、剝落等，當客戶有要求時，須檢查鍍層厚度
如有防鏽漆含有油漬或流涕之現象，不能完全附著於成品時，應立即停止使用並更換新漆。

防鏽漆型別：

防鏽劑 B-421

型別：由高分子特殊樹脂及耐侯防蝕之高級顏料精製而成之高級防鏽劑。

Type: special resin and a polymer weathering corrosion pigments refined senior rust inhibitor.

用途：鋼鐵材質之管件、鋼板設備、鋼構造物皆可使用之乾性防鏽劑。

Uses: Steel Material include pipe fittings, steel equipment, steel structures can be used in dry rust inhibitor.

特性：

- 1.乾燥時間短容易施工
- 2.附著力好劑膜堅韌
- 3.抗濕耐水性佳
- 4.一次防鏽力強可維持長時間防鏽效能
- 5.耐腐蝕性極耐磨性良好

Features:

- 1.Drying time is short, easy construction.
- 2.Good adhesion, film is tough.
- 3.anti-wet and water resistance.
- 4.Once anti-rust is strong, can be maintained for a long time performance.
- 5.Corrosion resistance good wear resistance.

S.G.S E112 晶粒度試驗

SGS Material & Engineering Laboratory Kaohsiung

QA RECORDS **NUCLEAR 核能**

Test Report

Report No.: KK-09-0713KX
Page No.: 1 OF 3
Date of Report: Nov. 05, 2009

Employer: CTCI MACHINERY CORPORATION
Client: I GHU METAL INDUSTRY CO., LTD.
Address: NO.37 HSDNG YEH RD. DALIAO VILLAGE KAGHSUNG HSIEN, TAIWAN, R.O.C.

Structural Location: CTCI M09P0111A-M0902
Case No.: ASME SEC II SA182-F304
Drawn No.: 035700

Submitted By: I GHU METAL INDUSTRY CO., LTD.
Insured Date: Oct. 01, 2009
Date of Testing: Oct. 01, 2009 to Oct. 23, 2009
Product Reinforcement: ASME SA182-040
Test Method: ASTM E112-96
Test Equipment: OLYMPUS BX51M
Remark: The information mentioned in the above section is provided by testing applicant (Exclude date of testing)
Q84-02 6.0N(April 20, 2009)

Quality Manual

TEST RESULTS:
ASTM Grain Size:
Specimen No. 035700 Result Grain Size No.3 Test Method ASTM E112-96
(As photo Page No. 2 OF 3, 3 OF 3)

— 1 —

The required specification(s) offered in this test report is/are for reference only. The conformity judgement is at the Applicant's final verdict.

SGS TAIWAN LTD. **SGS** TAIWAN LTD. **SGS** TAIWAN LTD.

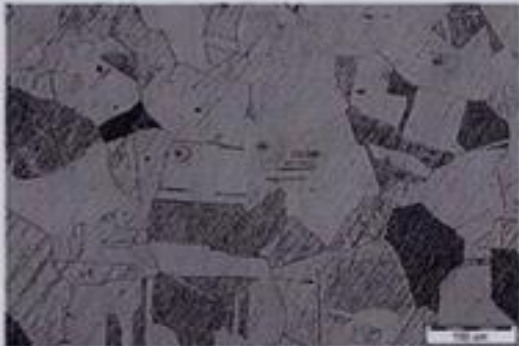
奧氏體級別鋼的晶粒度
應按E112試驗方法測定平均晶粒度
F304H, F309H, F310H和F316H級別鋼的晶粒度
應為ASTM 6號或更粗

SGS Laboratory Testing - ISO Certification - Inspection
81, Kai-Fa Rd., North Export Processing Zone, Kaohsiung, Taiwan 81170
Tel: (87) 305-2121 Fax: (87) 305-1188

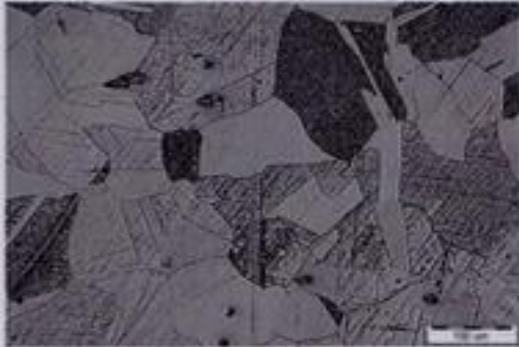
SAMPLE CARD **QA RECORDS** **NUCLEAR 核能**

Report No.: KK-09-0713KX
Page No.: 2 OF 3

ASTM Grain Size:



Specimen No.: 035700 Enching solution: HNO₃ + HCl
Magnification: 100x Grain Size: No.3



Specimen No.: 035700 Enching solution: HNO₃ + HCl
Magnification: 100x Grain Size: No.3

— 2 — **DUPLICATED**

DUPLICATE



中國驗船中心
CR Classification Society

Certificate No. 472-18-038

Date May 21, 2018

工廠認可證書
WORKS APPROVAL CERTIFICATE

This is to certify that the works of

I Ghu Metal Industry Co., Ltd.

has been approved by CR Classification Society in accordance with the requirements given in *CR Rules for the Construction and Classification of Steel Ships, Part XI - Materials* as a recognized manufacturer of the products of

Carbon Steel Forgings

for use in ships classed or intended to be classed with the Society.

This certificate is valid until May 01, 2023

CHIH-WEN CHENG

中國驗船中心 總驗船師
Chief Surveyor
CR Classification Society

(See next page for further details regarding the approval.)

This certificate evidences that the works of the Manufacturer has been assessed to be in compliance with the specified CR Rules or Guidelines and to be capable of providing the listed products. This Certificate may be cancelled by CR Classification Society if the applicant makes any changes or modifications relevant to the approval, which have not been notified to, and agreed in writing with the Society. Any person not a party to the contract pursuant to which this document is delivered may not assert a claim against CR Classification Society for any liability arising out of errors or omissions which may contained in said documents, or for errors of judgment, fault or negligence committed by personnel of the Society.

Please refer to the CR website for the latest status of this approval: www.crclass.org/aw0/aw0.htm

中國驗船中心
CR Classification Society

Name of Manufacturer:

I Ghu Metal Industry Co., Ltd.

Address of Manufacturer:

No.37, Hsing Yeh Road, Daliao District, Kaohsiung City, Taiwan, R.O.C.

Product Specification:

Carbon Steel Forgings for the Ship and Machinery Construction.

(Note: The materials for forgings, such as steel ingots, blooms, billets and rolled products, are to be manufactured at works or foundries which have been approved by the Society)

Related Documents & Remarks:

The intermediate audit is to be carried out and included surveys and tests of the approved products in the presence of the Surveyor, if deemed necessary. In case where the intermediate audit items are not practical, considerations will be given by the Society on a case-by-case basis.

- The End -