INSPECTION CERTIFICATE

Report No.	2018120010
Order No.	1000008
S/C No.	WSF-81614
Invoice No.	WSF-8085
Control Nos.	
Test Date	Dec/05/2018
Issue Date	Dec/12/2018
Ship Quantity	35600 Sets
Lot Quantity	35600 Sets

Customer	CHUN YU WORKS (USA) INC.
Description	**ASTM F3125/F3125M-15a GRADE F1852 DOME HEAD TYPE 1**
Size	**7/8-9 X 2"**
Set Lot No.	**A8161400104-11**
Part No.	**TC3 C08700200EP277462MK**
Surface	**PLAIN FINISHED.**

CHUN YU WORKS & CO., LTD.

100 Tapao St.
Kangshan, Kaohsiung 82063
Taiwan
Tel: +886-7-622-4111
Fax: +886-7-621-6697
www.chunyu.com.tw

TTQ05206

Chemical Specification and Composition(%)

Division	Material		C	Si	Mn	P	S	Cr	Mo	Ni	Cu	V	Ti	Al	B
	Heat No		X100			X1000		X100				X1000			X10000
Bolt	10B33M	Spec	30 52	15 30	60 Min	35 Max	40 Max								30 Max
	372857Z	Heat	33	23	83	8	3	14						19	17
Nut	SAE 1045	Spec	18 58		57 Min	48 Max	58 Max								
	374184Z	Heat	45	25	73	8	3	23						19	
Washer	10B20	Spec				50 Max	60 Max								
	1NH32	Heat	20	4	37	24	6							30	18

Mechanical Properties - Bolt

Lot No:	8161400104-11			
Grade	ASTM F3125/F3125M-15a GRADE F1852 TYPE1			
	Spec.	Unit	Meas	Avg
Tensile Test under Wedge Loading(4°)	55450 Min	Lbf	65000 66000	65500
Proof Load	39250 Min	Lbf	39500 39500	39500
Hardness	34 Max	HRC	31 32	32

Mechanical Properties- Nut

Lot No:	8161400301-11			
Grade	ASTM A563-07 DH			
	Spec.	Unit	Meas	Avg
Proof Load	175 Min	ksi	176 176	176
Hardness	24 38	HRC	25 26	26

Mechanical Properties- Washer

Lot No:	8161400207-11			
Grade	ASTM F436-07 TYPE1			
	Spec.	Unit	Meas	Avg
Washer Hardness	38 45	HRC	40 41	41

Assembly Lot Tension Test

	Spec.	Unit	Measurements					Avg
Assembly Lot Tension Test	40750 Min	Lbf	45843	47386	46835	46615	50141	47364

Marking

Bolt		Nut		Washer	

Visual, Dimensional, and Thread Inspections

	Bolt	Nut	Washer
Dimensions	OK	OK	OK
Visual	OK	OK	OK
Thread	OK	OK	---

Notes

We hereby certify that the above material has been satisfactorily tested in accordance with the material specifications.

S.M.CHANG

Authorized Signature
Manager of Q.A. Department

無放射性污染暨品質證明

(出 廠 證 明 書)

TEST CERTIFICATE

豐興鋼鐵股份有限公司
FENG HSIN STEEL CO., LTD.

OFFICE : 臺中市后里區甲后路一段998號
No. 998, Sec. 1, Jiahou Rd., Houli Dist.,
Taichung City 421, Taiwan(R. O. C)
TEL : (04)25565101
FAX : (04)25566955

客戶名稱 CUSTOMER NAME	春雨工廠股份有限公司 88187108			證明書編號 CERTIFICATE NO.	2077B0130-001
規格名稱 SPEC.	FH 10B33M C2	產品名稱 PRODUCT	HOT ROLLED ROUND BAR IN COIL 熱軋捲狀棒鋼	交運日期 SHIPPING DATE	2018/07/08~2018/07/09
				證明書列印日期 CERTIFICATE DATE	2018/07/10

尺寸及規格MATERIAL DESCRIP. 直徑 DIA. (mm)	長度 LEN. (m)	數量 QTY (bdl.)	重量 WEIGHT (kgs)	爐號 HEAT No.	拉力試驗TENSILE 降伏YP /mm2	抗拉TS /mm2	伸長率 EL(%)		化學成分(%)CHEMICAL ANALYSIS C	Si	Mn	P	S	Ni	Cr	Mo			Al				B				秤量單編號 SHIPPING NO.
									X100			X1000		X100					X1000				X10000			X100		
									32 35	15 30	82 88	30 MAX	35 MAX		12 18								5 MIN					
20		5	10,047	372303					34	22	84	11	4		15				21				16					2D7709041
20		1	2,015	372309					33	22	85	9	4		15				17				17					2D7709041
20		4	8,041	372309					33	22	85	9	4		15				17				17					2D7709014
20		11	22,127	372309					33	22	85	9	4		15				17				17					2D7709066
20		2	4,019	372851E					34	24	83	11	4		14				22				12					2D7709066
22		1	2,012	372856Z					32	23	84	10	3		14				19				18					2D7709013
22		1	2,013	372856Z					32	23	84	10	3		14				19				18					2D7709040
22		2	4,026	372856Z					32	23	84	10	3		14				19				18					2D7709042
22		10	20,058	372856Z					32	23	84	10	3		14				19				18					2D7709067
22		11	22,092	372856Z					32	23	84	10	3		14				19				18					2D7709081
22		2	4,025	372857Z					33	23	83	8	3		14				19				17					2D7709067
22		3	6,025	372857Z					33	23	83	8	3		14				19				17					2D7708049
22		3	6,037	372857Z					33	23	83	8	3		14				19				17					2D7709013

TOTAL: 56 BUNDLES 112,537 kgs.

REMARK: :

驗記

QC-09-11

※茲證明本表所列產品,均依材料規格製造及試驗並符合規格之要求
WE HEREBY CERTIFY THAT THE MATERIAL DESCRIBED HEREIN HAS BEEN MANUFACTURED AND TESTED WITH SATISFACTORY RESULTS IN ACCORDANCE WITH THE REQUIREMENT OF THE ABOVE MATERIAL SPECIFICATION.

冶金研發處處長
MANAGER
METALLURGICAL R&D DEP.

郭志毅

無放射性污染暨品質證明

(出 廠 證 明 書)

TEST CERTIFICATE

豐興鋼鐵股份有限公司
FENG HSIN STEEL CO., LTD.

OFFICE : 臺中市后里區甲后路一段998號
No. 998, Sec. 1, Jiahou Rd., Houli Dist.,
Taichung City 421, Taiwan(R.O.C)
TEL : (04)25565101
FAX : (04)25566955

客戶名稱 CUSTOMER NAME	春雨工廠股份有限公司 88187108	證明書編號 CERTIFICATE NO.	2079B0294-001
規格名稱 SPEC.	SAE 1045 AK CN	交運日期 SHIPPING DATE	2018/09/17~2018/09/23
產品名稱 PRODUCT	HOT ROLLED STRAIGHT ROUND BAR 熱軋直棒鋼	證明書列印日期 CERTIFICATE DATE	2018/09/25

尺寸及規格MATERIAL DESCRIP.					拉力試驗TENSILE				化學成分(%)CHEMICAL ANALYSIS																			
直徑 DIA. (mm)	長度 LEN. (m)	數量 QTY (bdl.)	重量 WEIGHT (kgs)	爐號 HEAT No.	降伏YP /mm²	抗拉TS /mm²	伸長率 EL(%)		C	Si	Mn	P	S	Ni	Cr	Mo			Al				B				秤量單編號 SHIPPING NO.
									X100			X1000		X100					X1000				X10000			X100	
									43 50		60 90	30 MAX	50 MAX														
26	8.1	5	10,093	374479					47	20	73	11	4		23				17								2D7917045
26	8.1	7	13,126	374479					47	20	73	11	4		23				17								2D7918046
26	8.1	7	13,787	374479					47	20	73	11	4		23				17								2D7918047
26	8.1	13	26,148	374479					47	20	73	11	4		23				17								2D7917044
30	8.1	4	7,826	374182Z					45	22	73	12	4		23				18								2D7921004
30	8.1	8	15,359	374182Z					45	22	73	12	4		23				18								2D7920071
30	8.1	13	25,016	374182Z					45	22	73	12	4		23				18								2D7920070
30	8.1	4	7,592	374184Z					45	25	73	8	3		23				19								2D7923005
30	8.1	5	9,713	374184Z					45	25	73	8	3		23				19								2D7919087
30	8.1	8	15,580	374184Z					45	25	73	8	3		23				19								2D7921004
30	8.1	14	27,187	374184Z					45	25	73	8	3		23				19								2D7923004
30	8.1	18	35,320	374184Z					45	25	73	8	3		23				19								2D7919060
30	8.1	4	6,819	374185Z					45	22	70	10	2		25				17								2D7919087

TOTAL: 110 BUNDLES 213,566 kgs.

REMARK: : The dimensional tolerances of hot rolled steel are according to JIS G4051

品保部

驗訖

QC-09-11

※茲證明本表所列產品,均依材料規格製造及試驗並符合規格之要求
WE HEREBY CERTIFY THAT THE MATERIAL DESCRIBED HEREIN HAS BEEN MANUFACTURED AND TESTED WITH SATISFACTORY RESULTS IN ACCORDANCE WITH THE REQUIREMENT OF THE ABOVE MATERIAL SPECIFICATION.

冶金研發處處長
MANAGER
METALLURGICAL R&D DEP.

郭志毅

WE81047-02

中國鋼鐵 CHINASTEEL

品質證明書
TEST CERTIFICATE

10705006

中國鋼鐵股份有限公司
CHINA STEEL CORPORATION
中華民國高雄市小港區中鋼路1號
1 CHUNG KANG ROAD HSIAO KANG, KAOHSIUNG 81223
TAIWAN, REPUBLIC OF CHINA
TEL: (07)802-1111 FAX: (07)802-2511, (07)801-9427
E-mail: t21lmae@mail.csc.com.tw

B0184-01 COMPANY REGISTRATION NUMBER: 30414175 0614

客戶名稱 CUSTOMER	三星科技股份有限公司 SAN SHING FASTECH CORP.	產品名稱 PRODUCT	BAR-CARBON STEEL		
		發票號碼 INVOICE NO.	DW40765290	證明書編號 CERTIFICATE NO.	070518B0184
規格名稱 SPEC.	CSC SPEC 10B20 (HCWQ2)	客戶編號 CUSTOMER NO.	68040606	中鋼訂單編號 CSC ORDER NO.	DW3404D
		交運日期 SHIPPING DATE	MAY. 17, 2018	證明書日期 T/C ISSUE DATE	MAY. 18, 2018
檢驗 INSP.	CSC MILL INSPECTION T/C 01	客戶訂單編號 CUST ORDER NO.			

項目 ITEM NO.	產品序號 SEQ. NO.	尺寸 DIMENSIONS 直徑/DIA/THICK mm	寬度 WIDTH	長度 LENGTH mm	數量 QTY	質量 MASS kg	爐號 HEAT	C 2×10	Mn 2×10	P 3×10	S	Si 2×10	Cu	Ni	Cr	Al 3×10	B 4×10	備註 REMARKS
005	BR303 01	25.00		COIL	15	29.719	1NH32	20	37	24	6	4				30	18	
			TOTAL:		15	29.719												

註釋 NOTES

三星科技股份有限公司 無輻射污染證明經銷商專用章

林文傑 無輻射污染證明經銷商專用章

台灣鐵業股份有限公司 無輻射污染證明經銷商專用章

吉源 無輻射污染證明經銷商專用章

SURVEYED BY

茲證明本表所列產品，均依材料規格製造及試驗，並符合規格之要求。
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Yong-Pzuan Chen

冶金技術處處長
GENERAL MANAGER, METALLURGICAL DEPARTMENT