

INSPECTION CERTIFICATE

Report No.	2018060008-05
Order No.	W10095
S/C No.	WSF-80505
Invoice No.	WSF-8044
Control Nos.	
Test Date	May/17/2018
Issue Date	Jun/20/2018
Ship Quantity	480 Sets
Lot Quantity	14760 Sets

Customer	CHUN YU WORKS (USA) INC.
Description	ASTM F1852-11 DOME HEAD TYPE 1
Size	7/8-9 X 2-1/2"
Set Lot No.	A8050500303-12
Part No.	277464
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



Chemical Specification and Composition(%)

Division	Material	Heat No	C	Si	Mn	P	S	Cr	Mo	Ni	Cu	V	Ti	Al	B
Bolt	10B33	Spec	28 55	8 32	57 Min	48 Max	58 Max								5 30
	MX997	Heat	34	24	88	16	2	13		1	1			22	18
Nut	SAE 1045 AL-KILL	Spec	18 58		57 Min	48 Max	58 Max								
	364050	Heat	44	20	73	14	4	22						16	
Washer	10B20	Spec				50 Max	60 Max								
	2Y457	Heat	19	6	39	14	9							34	21

Mechanical Properties - Bolt

Lot No:	8050500303-12			
Grade	ASTM F1852-11 TYPE1			
	Spec.	Unit	Meas	Avg
Tensile Test under Wedge Loading(10°)	55450 Min	Lbf	66000 66500	66500
Proof Load	39250 Min	Lbs	39500 39500	39500
Hardness	25	HRC	29	30
	34		30	

Mechanical Properties- Nut

Lot No:	8050501401-11			
Grade	ASTM A563-07 DH			
	Spec.	Unit	Meas	Avg
Proof Load	175 Min	ksi	177 177	177
Hardness	24	HRC	26	27
	38		28	

Mechanical Properties- Washer

Lot No:	8050501009-11			
Grade	ASTM F436-07 TYPE1			
	Spec.	Unit	Meas	Avg
Washer Hardness	38	HRC	40	40
	45		40	

Assembly Lot Tension Test

	Spec.	Unit	Measurements							Avg	
Assembly Lot Tension Test	41 Min	kips	46.9	48.5	47.9	47.1	46.7	--	--	--	47.4

Marking

Bolt		Nut		Washer	
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Visual, Dimensional, and Thread Inspections

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

Notes

Heats having the elements listed in ASTM F1852-11 7.1.4 and 7.1.5 intentionally added were not used to produce these tension control bolts
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

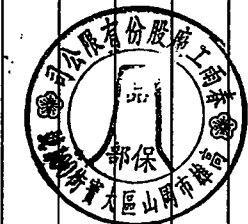


(出廠證明書)
TEST CERTIFICATE

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.	2064B0039-001
規格名稱 SPEC.	SAE 1045 AK CN	產品名稱 PRODUCT	HOT ROLLED STRAIGHT ROUND BAR 熱軋直棒鋼	交運日期 SHIPPING DATE	2017/04/05~2017/04/06
				證明書列印日期 CERTIFICATE DATE	2017/04/07

尺寸及規格 MATERIAL DESCRIP.				爐號 HEAT No.	拉力試驗 TENSILE			化學成分 (%) CHEMICAL ANALYSIS												秤量單 編號 SHIPPING NO.
直徑 DIA. (mm)	長度 LEN. (m)	數量 QTY (bdl.)	重量 WEIGHT (kgs)		降伏 YP /mm ²	抗拉 TS /mm ²	伸長率 EL(%)	C	Si	Mn	P	S	Ni	Cr	Mo	Al	B			
							X100	X1000	X100			X1000			X10000	X100				
							43		60	30	50									
							50		90	MAX	MAX									
22	8.1	20	39,338	362971			45	20	74	16	5		24			19				
30	8.1	8	16,010	364045			47	23	74	16	3		22			20				
30	8.1	1	1,958	364048			47	25	74	14	8		22			15				
30	8.1	13	25,602	364048			47	25	74	14	8		22			15				
30	8.1	21	41,375	364048			47	25	74	14	8		22			15				
30	8.1	1	1,920	364050			44	20	73	14	4		22			16				
30	8.1	18	35,635	364050			44	20	73	14	4		22			16				



TOTAL:	82 BUNDLES	161,838 kgs.	驗訖
REMARK:	The dimensional tolerances of hot rolled steel are according to JIS G4051		

※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.

QC-09-11
冶金研發處處長
MANAGER
METALLURGICAL R&D DEP.
郭志毅

