

INSPECTION CERTIFICATE

Report No.	2018060026
Order No.	T04654
S/C No.	WSF-80338
Invoice No.	WSF-8043
Control Nos.	
Test Date	May/17/2018
Issue Date	Jun/20/2018
Ship Quantity	11760 Sets
Lot Quantity	11760 Sets

Customer	CHUN YU WORKS (USA) INC.
Description	ASTM F1852-11 DOME HEAD TYPE 1
Size	7/8-9 X 2"
Set Lot No.	A8033800109-11
Part No.	277462
Surface	PLAIN FINISHED.



CHUN YU WORKS & CO., LTD.

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TTQ05206



Quality Management
00017



SGS
IATF 0277348



N° 20 10/38522

Chemical Specification and Composition(%)

Division	Material	Heat No	C	Si	Mn	P	S	Cr	Mo	Ni	Cu	V	Ti	Al	B
			X100			X1000			X100			X1000			X10000
Bolt	10B33	Spec	28 55	8 32	57 Min	48 Max	58 Max								5 30
	MX129	Heat	33	21	85	16	4	14		1	1			26	19
Nut	SAE 1045 AL-KILL	Spec	18 58		57 Min	48 Max	58 Max								
	364045	Heat	47	23	74	16	3	22						20	
Washer	10B20	Spec				50 Max	60 Max								
	1MG22	Heat	20	5	40	10	4							32	16

Mechanical Properties - Bolt

Lot No:	8033800109-11			
Grade	ASTM F1852-11 TYPE1			
	Spec.	Unit	Meas	Avg
Proof Load	39250 Min	Lbs	39500 39500	39500
Hardness	25 34	HRC	30 31	30
Pieces Tensile Strength	120000 Min	PSI	136800 138500	137600

Mechanical Properties- Nut

Lot No:	8033800304-11			
Grade	ASTM A563-07 DH			
	Spec.	Unit	Meas	Avg
Proof Load	175 Min	ksi	176 177	177
Hardness	24 38	HRC	26 29	28

Mechanical Properties- Washer

Lot No:	8033800201-11			
Grade	ASTM F436-07 TYPE1			
	Spec.	Unit	Meas	Avg
Washer Hardness	38 45	HRC	41 42	41

Assembly Lot Tension Test

	Spec.	Unit	Measurements							Avg	
Assembly Lot Tension Test	41 Min	kips	47.4	46.8	46.3	46.3	45.2	--	--	--	46.4

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

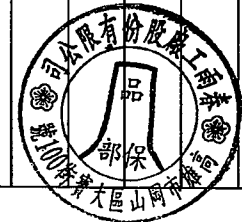


(出廠證明書)
TEST CERTIFICATE

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Taichung City 421, Taiwan(R. O. C)
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客戶名稱 CUSTOMER NAME	春雨工廠股份有限公司		88187108	證明書編號 CERTIFICATE NO.	2064B0093-001
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	2017/04/07-2017/04/09
				證明書列印日期 CERTIFICATE DATE	2017/04/11

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											
30	8.1	2	3,945	364045			47	23	74	16	3		22				20					2D6409026
30	8.1	3	5,926	364045			47	23	74	16	3		22				20					2D6407029
30	8.1	11	21,568	364045			47	23	74	16	3		22				20					2D6407037
30	8.1	19	37,791	364045			47	23	74	16	3		22				20					2D6409046
30	8.1	18	35,962	364048			47	25	74	14	8		22				15					2D6409026
30	8.1	1	1,967	364050			44	20	73	14	4		22				16					2D6407037
30	8.1	9	17,602	364050			44	20	73	14	4		22				16					2D6407029



TOTAL: 63 BUNDLES 124,761 kgs.

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

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

