BRIGHTON-BEST INTERNATIONAL INC.
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Certified Material Test Report to BS EN 10204-2004 3.1
FOR ASME SA194/ ASTM A194-14 GRADE 2H HVY HEX NUTS

FACTORY: NINGBO HAIXIN HARDWARE CO.,LTD.
ADDRESS: XIJINGTANG,LUOTUO NINGBO ZHEJIANG 315205 CHINA
DATE: SEP.02.2016
COUNTRY OF ORIGIN CHINA
MFG LOT NUMBER: 5108210002
CUSTOMER: BRIGHTON-BEST INTERNATIONAL (TAIWAN) INC
PO NUMBER: U34816
QNTY SHIPPED: 801.900MPCS
PART NO: 313002
SAMPLE SIZE : ACC. TO ASME B18 . 18 . 1 - 11
MANUFACTURER DATE：2016/8/24
SIZE & DESCRIPTION: 1/2-13+0.018"(HDG/WAX/BLUE DYE)
FINISH:H.T.HOT DIP GAL PER ASTM A153-09/ASTM F2329-13

STEEL PROPERTIES:
STEEL GRADE: SWRCH45K SIZE: 20mm HEAT NO: E4604384
CHEMISTRY COMPOSITION:

CHEMIST	C %	Mn %	P %	S %	Si %	Cr %	Ni %	Cu %	Mo %	OTHERS
SPE:	MIN	MAX	MAX	MAX	MAX					
	0.40	1.00	0.04	0.05	0.40					
TEST:	0.45	0.69	0.01	0.005	0.18					

DIMENSIONAL INSPECTIONS SPECIFICATION: ASME/ANSI B18 . 2 . 2 - 2010

CHARACTERISTICS	TEST METHOD	SPECIFIED	ACTUAL RESULT	ACC.	REJ.
APPEARANCE	ASTM F812-12		PASSED	100	0
WIDTH A/F	0.850"-0.875"		0.856"-0.866"	32	0
WIDTH A/C	0.969"-1.010"		0.982"-1.001"	32	0
THREAD	ASME B1.1-03		PASSED	8	0
HEIGHT	0.464"-0.504"		0.483"-0.496"	32	0
MARK	2HZN LM		PASSED	100	0
HDG THICKNISS	ASTM A153-09/ASTM F2329-13 min:43um		63UM-71UM	20	0

MECHANICAL PROPERTIES: TO 1-1/2" in SPECIFICATION: ASME SA194/ ASTM A194-14

CHARACTERISTICS	TEST METHOD	SPECIFIED	ACTUAL RESULT	ACC.	REJ.
HARDNESS	ASTM E18-12	24-35HRC	HRC27-28	5	0
PROOF LOAD	ASTM F606-11	MIN24830	24830LBF	5	0
HARDNESS AFTER 24H AT 540^{O}C ASTM A194 MIN 89 HRB			HRB 96-98	5	0
TEMPERING TEMPERATURE Min455^{O}C			PASSED(520^{O}C)		
MACROETCH	ASTM E381-12	S1/R1/C1~S4/R4/C4	S2/R2/C2	5	0

PARTS ARE MANUFACTURED AND TESTED IN ACCORDANCE WITH ASME SA194/ ASTM A194-14
ALL TESTS IN ACCORDANCE WITH THE METHODS PRESCRIBED SPECIFICATION. WE CERTIFY THAT THIS DATA IS A TRUE REPRESENTATION OF INFORMATION PROVIDED BY THE MATERIAL SUPPLIER AND OUR TESTING LABORATORY.

All parts meet the requirements of FQA and records of compliance are on file.

Maker's ISO#00109Q211593R0M/3302



(SIGNATURE OF QA/LAB MGR.)
(NAME OF MANUFACTURER)