



**GEM-YEAR TESTING LABORATORY  
CERTIFICATE OF INSPECTION**

MANUFACTURER: GEM-YEAR INDUSTRIAL CO., LTD.  
 ADDRESS: NO.8GEM-YEAR  
 ROAD,E.D.Z.JIASHAN,ZHEJIANG,P.R.CHINA  
 PURCHASER: MAPTCO FASTENERS (AUST) PTY LTD  
 PO. NUMBER: MAP-2014M  
 COMMODITY: AS1252 STRUCTURAL BOLT CL 8.8  
 SIZE: M20-2.50X180 B:52  
 LOT NO: 1B2051240(1A20704371)  
 SHIP QUANTITY: 1,200 PCS  
 HEADMARKS: GENIUS SYMBOL & 3 RADIAL LINES & 8.8  
 COUNTRY OF ORIGIN: CHINA

TEL: (0573) 84185001 (48Lines)  
 FAX: (0573) 84184488 84184567  
 DATE: 2020/08/03  
 PACKING NO: GEM200706008  
 INVOICE NO: GEM/MAP-200803MEL  
 PART NO: G064  
 SAMPLING PLAN:  
 ASME B18.18-2017/ASTM F1470-2018  
 HEAT NO: 20103397  
 MATERIAL: ML20MTB  
 FINISH: H. T. HOT DIP GAL PER ASTM  
 A153/ASTM F2329

**PERCENTAGE COMPOSITION OF CHEMISTRY: TEST FACILITY :S**

Chemistry	Al%	B%	C%	Mn%	P%	S%	Si%	Ti%
Spec.:MIN.	0.0200	0.0008	0.1800	1.3000			0.1000	0.0400
MAX.		0.0035	0.2300	1.6000	0.0250	0.0250	0.3000	0.1000
Test Value	0.0380	0.0018	0.2000	1.4000	0.0170	0.0040	0.1500	0.0700

**DIMENSIONAL INSPECTIONS: ACCORDING TO AS1252-1983 TEST FACILITY : M**

SAMPLED BY: YUQIAN

INSPECTIONS ITEM	SAMPLE	TEST METHOD	REF	SPECIFIED	ACTUAL RESULT	ACC	REJ
HEIGHT	3 PCS	JB/T 9151		12.1000-12.3500 MM	12.1500-12.2100 MM	3	0
BODY DIAMETER	3 PCS	JB/T 9151		19.1600-20.0000 MM	19.8400-19.8900 MM	3	0
NOMINAL LENGTH	13 PCS	JB/T 9151		179.2000-180.8000 MM	179.7600-179.8900 MM	13	0
THREAD LENGTH	13 PCS	JB/T 9151	52		51.5600-51.7800 MM	13	0
WIDTH ACROSS FLATS	3 PCS	JB/T 9151		31.0000-31.8500 MM	31.7100-31.7900 MM	3	0
MAJOR DIAMETER	3 PCS	JB/T 9151		19.6700-19.9500 MM	19.8500-19.8700 MM	3	0
WIDTH ACROSS CORNERS	3 PCS	JB/T 9151		Min. 35.0300 MM	36.3200-36.3900 MM	3	0
SURFACE DISCONTINUITIES	18 PCS	IS06157.3			PASSED	18	0
THREAD	13 PCS	JB/T 9151		nut	PASSED	13	0

**MECHANICAL PROPERTIES: ACCORDING TO AS1252-1996 TEST FACILITY : M**

SAMPLED BY: ZHAOQING

INSPECTIONS ITEM	SAMPLE	TEST METHOD	REF	SPECIFIED	ACTUAL RESULT	ACC	REJ
CORE HARDNESS	13 PCS	IS0898.1		23-34 HRC	26-30 HRC	13	0
SURFACE HARDNESS (UNLIKE CORE HARDNESS 30 HV)	13 PCS	IS0898.1			OK	13	0
ELONGATION	3 PCS	IS0898.1		Min. 12 %	14-18 %	3	0
PROOF LOAD	13 PCS	ASTM F606/F606M		Min. 147,000 N	147,010-147,018 N	13	0
TENSILE STRENGTH	3 PCS	IS0898.1		Min. 830 N/MM2	880-904 N/MM2	3	0
YIELD STRENGTH	13 PCS	IS0898.1		Min. 660 N/MM2	670-676 N/MM2	13	0
WEDGE LOAD	13 PCS	IS0898.1		Min. 203,000 N	203,000-203,071 N	13	0
PLATING THICKNESS( μ m)	8 PCS	ASTM B568		>=53	56.24-70.9	8	0

ALL TESTS ARE IN ACCORDANCE WITH THE METHODS PRESCRIBED IN THE APPLICABLE ASTM/SAE/ASME. SPECIFICATION. WE CERTIFY THAT THIS DATA IS A TRUE REPRESENTATION OF INFORMATION PROVIDED BY THE MATERIAL SUPPLIER AND OUR TESTING LABORATORY.

THE REPORT IS ISSUED ACCORDING TO ISO16228 F3.1(EN10204 3.1)

TYPE M: MANUFACTURER



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TYPE S: SUPPLIER(STEEL MILL,PLATING SUB SUPPLIER,HEAT TREATMENT SUB SUPPLIER ETC.,)

WE CERTIFY THE PARTS ARE ROHS COMPLIANT.

SIGNATURE: