



**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-2014F
 COMMODITY: AS1252 STRUCTURAL BOLT CL 8.8
 SIZE: M20-2.50X90
 LOT NO: 1B2051244(1A20613791)
 SHIP QUANTITY: 1,920 PCS
 HEADMARKS: GENIUS SYMBOL & 3 RADIAL LINES & 8.8
 COUNTRY OF ORIGIN: CHINA

TEL: (0573) 84185001 (48Lines)
 FAX: (0573) 84184488 84184567
 DATE: 2020/07/07
 PACKING NO: GEM200521014
 INVOICE NO: GEM/MAP-200708 FRE
 PART NO: G056
 SAMPLING PLAN:
 ASME B18.18-2017/ASTM F1470-2018
 HEAT NO: 20301896
 MATERIAL: ML20MTB
 FINISH: H. T. HOT DIP GAL PER ASTM
 A153/ASTM F2329

PERCENTAGE COMPOSITION OF CHEMESTRY: 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	0.0360	0.0019	0.1900	1.3900	0.0140	0.0010	0.1600	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
MAJOR DIAMETER	4 PCS	JB/T 9151		19.6700-19.9500 MM	19.8100-19.8800 MM	4	0
BODY DIAMETER	4 PCS	JB/T 9151		19.1600-20.0000 MM	19.7800-19.8500 MM	4	0
NOMINAL LENGTH	15 PCS	JB/T 9151		89.3000-90.7000 MM	89.7200-89.9000 MM	15	0
THREAD LENGTH	15 PCS	JB/T 9151	46		46.0500-46.5100 MM	15	0
WIDTH ACROSS FLATS	4 PCS	JB/T 9151		31.0000-31.8500 MM	31.8100-31.8400 MM	4	0
WIDTH ACROSS CORNERS	4 PCS	JB/T 9151		Min. 35.0300 MM	36.2800-36.3400 MM	4	0
SURFACE DISCONTINUITIES	22 PCS	IS06157.3			PASSED	22	0
HEIGHT	4 PCS	JB/T 9151		12.1000-12.3500 MM	12.2800-12.3400 MM	4	0
THREAD	15 PCS	JB/T 9151		nut	PASSED	15	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	15 PCS	IS0898.1		23-34 HRC	26-30 HRC	15	0
SURFACE HARDNESS (UNLIKE CORE HARDNESS 30 HV)	15 PCS	IS0898.1			OK	15	0
PROOF LOAD	15 PCS	ASTM F606/F606M		Min. 147,000 N	147,010-147,019 N	15	0
TENSILE STRENGTH	4 PCS	IS0898.1		Min. 830 N/MM2	880-888 N/MM2	4	0
WEDGE LOAD	15 PCS	IS0898.1		Min. 203,000 N	203,010-203,019 N	15	0
YIELD STRENGTH	15 PCS	IS0898.1		Min. 660 N/MM2	670-679 N/MM2	15	0
PLATING THICKNESS(μm)	13 PCS	ASTM B568		>=53	56.86-87.66	13	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

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



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WE CERTIFY THE PARTS ARE ROHS COMPLIANT.

SIGNATURE: