



**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: M16-2.00X220 B:57
 LOT NO: 1B2051298(1A20714551)
 SHIP QUANTITY: 1,680 PCS
 HEADMARKS: GENIUS SYMBOL & 3 RADIAL LINES & 8.8
 COUNTRY OF ORIGIN: CHINA

TEL: (0573) 84185001 (48Lines)
 FAX: (0573) 84184488 84184567
 DATE: 2020/07/31
 PACKING NO: GEM200717001
 INVOICE NO: GEM/MAP-200805FRE
 PART NO: G036
 SAMPLING PLAN:
 ASME B18.18-2017/ASTM F1470-2018
 HEAT NO: 19104549-4
 MATERIAL: 20MTB
 FINISH: H. T. HOT DIP GAL PER ASTM
 A153/ASTM F2329

PERCENTAGE COMPOSITION OF CHEMISTRY: TEST FACILITY :S

Chemistry	B%	C%	Mn%	P%	S%	Si%
Spec.:MIN.	0.0005	0.1700	1.3000			0.1700
MAX.	0.0030	0.2400	1.6000	0.0250	0.0250	0.3700
Test Value	0.0022	0.2100	1.3700	0.0190	0.0010	0.2100

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

SAMPLED BY: YUQIAN

INSPECTIONS ITEM	SAMPLE	TEST METHOD	REF	SPECIFIED	ACTUAL RESULT	ACC	REJ
NOMINAL LENGTH	15 PCS	JB/T 9151		219.0000-221.0000 MM	219.8200-220.6400 MM	15	0
THREAD LENGTH	15 PCS	JB/T 9151	57		56.7000-56.9800 MM	15	0
BODY DIAMETER	4 PCS	JB/T 9151		15.3000-16.7000 MM	15.8200-15.8500 MM	4	0
HEIGHT	4 PCS	JB/T 9151		9.2500-10.7500 MM	9.2600-9.2900 MM	4	0
WIDTH ACROSS FLATS	4 PCS	JB/T 9151		26.1600-27.0000 MM	26.6200-26.8400 MM	4	0
MAJOR DIAMETER	4 PCS	JB/T 9151		15.7200-15.9600 MM	15.7700-15.7900 MM	4	0
SURFACE DISCONTINUITIES	22 PCS	IS06157.3			PASSED	22	0
WIDTH ACROSS CORNERS	4 PCS	JB/T 9151		Min. 29.5600 MM	30.4800-30.5700 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
TENSILE STRENGTH	4 PCS	IS0898.1		Min. 800 N/MM2	870-874 N/MM2	4	0
SURFACE HARDNESS (UNLIKE CORE HARDNESS 30 HV)	15 PCS	IS0898.1			OK	15	0
ELONGATION	4 PCS	IS0898.1		Min. 12 %	14-17 %	4	0
YIELD STRENGTH	15 PCS	IS0898.1		Min. 640 N/MM2	650-665 N/MM2	15	0
PROOF LOAD	15 PCS	ASTM F606/F606M		Min. 91,000 N	91,010-91,025 N	15	0
CORE HARDNESS	15 PCS	IS0898.1		22-32 HRC	26-30 HRC	15	0
WEDGE LOAD	15 PCS	IS0898.1		Min. 125,000 N	125,000-125,057 N	15	0
PLATING THICKNESS(μ m)	13 PCS	ASTM B568		>=53	57.9-77.34	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



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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: