



**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-2022F  
 COMMODITY: ISO 4014 HEX HEAD BOLT HALF THREAD CL 8.8  
 SIZE: M20-2.50X70  
 LOT NO: 1B2050712  
 SHIP QUANTITY: 320 PCS  
 HEADMARKS: GENIUS SYMBOL & 8.8  
 COUNTRY OF ORIGIN: CHINA

TEL: (0573) 84185001 (48Lines)  
 FAX: (0573) 84184488 84184567  
 DATE: 2020/09/09  
 PACKING NO: GEM200824007  
 INVOICE NO: GEM/MAP-200911FRE  
 PART NO: A1120  
 SAMPLING PLAN:  
 ASME B18.18-2017/ASTM F1470-2018  
 HEAT NO: 12105923-4  
 MATERIAL: X40ACR  
 FINISH: H. T. TRIVALENT ZINC PER ASTM F1941

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

Chemistry	Al%	C%	Cr%	Mn%	P%	S%	Si%
Spec.:MIN.	0.0200	0.4000	0.2000	0.7000			
MAX.		0.4300	0.4000	0.9000	0.0250	0.0150	0.1000
Test Value	0.0400	0.4100	0.2790	0.7900	0.0150	0.0060	0.0500

**DIMENSIONAL INSPECTIONS: ACCORDING TO ISO4014-2011 TEST FACILITY : M**

SAMPLED BY: YUQIAN

INSPECTIONS ITEM	SAMPLE	TEST METHOD	REF	SPECIFIED	ACTUAL RESULT	ACC	REJ
HEIGHT	3 PCS	JB/T 9151		12.2900-12.7100 MM	12.4600-12.5000 MM	3	0
BODY DIAMETER	3 PCS	JB/T 9151		19.6700-20.0000 MM	19.6800-19.8000 MM	3	0
WIDTH ACROSS FLATS	3 PCS	JB/T 9151		29.6700-30.0000 MM	29.8700-29.9300 MM	3	0
THREAD LENGTH	9 PCS	JB/T 9151	46		52.1600-52.8600 MM	9	0
NOMINAL LENGTH	9 PCS	JB/T 9151		69.4000-70.6000 MM	69.9100-70.1200 MM	9	0
WIDTH ACROSS CORNERS	3 PCS	JB/T 9151		Min. 33.5300 MM	34.1800-34.3400 MM	3	0
MAJOR DIAMETER	3 PCS	JB/T 9151		19.6300-19.9500 MM	19.7500-19.7700 MM	3	0
SURFACE DISCONTINUITIES	11 PCS	IS06157.3			PASSED	11	0
THREAD	9 PCS	JB/T 9151		6h GO 6h NOGO	PASSED	9	0

**MECHANICAL PROPERTIES: ACCORDING TO ISO 898.1-2013 TEST FACILITY : M**

SAMPLED BY: DAIWENTING

INSPECTIONS ITEM	SAMPLE	TEST METHOD	REF	SPECIFIED	ACTUAL RESULT	ACC	REJ
SURFACE HARDNESS	9 PCS	ASTM E384		Max. 365 HV	277-295 HV	9	0
CORE HARDNESS	9 PCS	IS0898.1		23-34 HRC	28.5-30.6 HRC	9	0
TENSILE STRENGTH	3 PCS	IS0898.1		Min. 830 N/MM2	899-905 N/MM2	3	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.)

WE CERTIFY THE PARTS ARE ROHS COMPLIANT.

SIGNATURE: