



**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-2031F
 COMMODITY: ISO 4014 HEX HEAD BOLT HALF THREAD CL 8.8
 SIZE: M20-2.50X100
 LOT NO: 1B2073122
 SHIP QUANTITY: 1,920 PCS
 HEADMARKS: GENIUS SYMBOL & 8.8
 COUNTRY OF ORIGIN: CHINA

TEL: (0573) 84185001 (48Lines)
 FAX: (0573) 84184488 84184567
 DATE: 2020/10/13
 PACKING NO: GEM200918002
 INVOICE NO: GEM/MAP-201014FRE
 PART NO: A1148
 SAMPLING PLAN:
 ASME B18.18-2017/ASTM F1470-2018
 HEAT NO: 20107928
 MATERIAL: ML40CR
 FINISH: H. T. TRIVALENT ZINC PER ASTM F1941

PERCENTAGE COMPOSITION OF CHEMISTRY: TEST FACILITY :S

Chemistry	C%	Cr%	Mn%	P%	S%	Si%
Spec.:MIN.	0.3800	0.9000	0.6000			
MAX.	0.4500	1.2000	0.9000	0.0350	0.0350	0.3000
Test Value	0.4100	1.0000	0.7000	0.0160	0.0050	0.1400

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

SAMPLED BY: ZHONGLI

INSPECTIONS ITEM	SAMPLE	TEST METHOD	REF	SPECIFIED	ACTUAL RESULT	ACC	REJ
NOMINAL LENGTH	15 PCS	JB/T 9151		99.3000-100.7000 MM	99.3000-100.7000 MM	15	0
THREAD LENGTH	15 PCS	JB/T 9151	46		46.1200-46.6700 MM	15	0
HEIGHT	4 PCS	JB/T 9151		12.2900-12.7100 MM	12.2900-12.7100 MM	4	0
WIDTH ACROSS FLATS	4 PCS	JB/T 9151		29.6700-30.0000 MM	29.6700-30.0000 MM	4	0
SURFACE DISCONTINUITIES	22 PCS	ISO6157.3			PASSED	22	0
BODY DIAMETER	4 PCS	JB/T 9151		19.6700-20.0000 MM	19.6700-20.0000 MM	4	0
WIDTH ACROSS CORNERS	4 PCS	JB/T 9151		Min. 33.5300 MM	33.5300-33.8900 MM	4	0
MAJOR DIAMETER	4 PCS	JB/T 9151		19.6300-19.9500 MM	19.6300-19.9500 MM	4	0
THREAD	15 PCS	JB/T 9151		6h GO 6h NOGO	PASSED	15	0

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

SAMPLED BY: WANGXIAOLAN

INSPECTIONS ITEM	SAMPLE	TEST METHOD	REF	SPECIFIED	ACTUAL RESULT	ACC	REJ
SURFACE HARDNESS	4 PCS	ISO898.1		Max. 365 HV	286-314 HV	4	0
CORE HARDNESS	4 PCS	ISO898.1		23-34 HRC	29.3-31.4 HRC	4	0
TENSILE STRENGTH	3 PCS	ISO898.1		Min. 830 N/MM2	951-981 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: