



# GEM-YEAR TESTING LABORATORY CERTIFICATE OF INSPECTION

MANUFACTURER : GEM-YEAR INDUSTRIAL CO., LTD.  
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ROAD, E.D.Z., JIASHAN, ZHEJIANG, P.R. CHINA

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DATE : 2020/05/18

PURCHASER : MAPTCO FASTENERS (AUST) PTY LTD  
PO. NUMBER : MAP-1941S  
COMMODITY : ISO 4014 HEX HEAD BOLT HALF THREAD CL 8.8  
SIZE : M20-P2.50X120  
LOT NO : 1B1973034  
SHIP QUANTITY : 64 PCS  
HEADMARKS : GENIUS SYMBOL & 8.8  
COUNTRY OF ORIGIN : CHINA

PACKING NO : GEM200426003  
INVOICE NO : GEM/MAP-200518SYD  
PART NO : A1159  
SAMPLING PLAN :  
ASME B18.18-2017/ASTM F1470-2018  
HEAT NO : 19304805-1  
MATERIAL : ML40CR  
FINISH : H. T. PLAIN

**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	0.4300	1.0000	0.7000	0.0130	0.0030	0.1800

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

SAMPLED BY : ZHLEI

INSPECTIONS ITEM	SAMPLE	TEST METHOD	REF	SPECIFIED	ACTUAL RESULT	ACC.	REJ.
THREAD LENGTH	13 PCS	JB/T 9151	46		51.8200-51.8500 MM	13	0
MAJOR DIAMETER	3 PCS	JB/T 9151		19.6300-19.9500 MM	19.7000-19.7100 MM	3	0
BODY DIAMETER	3 PCS	JB/T 9151		19.6700-20.0000 MM	19.7500-19.9100 MM	3	0
WIDTH ACROSS CORNERS	3 PCS	JB/T 9151		Min. 33.5300 MM	33.5600-33.5700 MM	3	0
HEIGHT	3 PCS	JB/T 9151		12.2900-12.7100 MM	12.3600-12.5400 MM	3	0
NOMINAL LENGTH	13 PCS	JB/T 9151		119.3000-120.7000 MM	119.4900-120.6100 MM	13	0
WIDTH ACROSS FLATS	3 PCS	JB/T 9151		29.6700-30.0000 MM	29.7500-29.8000 MM	3	0
SURFACE DISCONTINUITIES	18 PCS	ISO6157.3			PASSED	18	0
THREAD	13 PCS	JB/T 9151		6g GO 6g NOGO	PASSED	13	0

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

SAMPLED BY : NSYING

INSPECTIONS ITEM	SAMPLE	TEST METHOD	REF	SPECIFIED	ACTUAL RESULT	ACC.	REJ.
CORE HARDNESS	13 PCS	ISO898.1		23-34 HRC	30-32 HRC	13	0
SURFACE HARDNESS	13 PCS	ISO898.1			303-323 HV	13	0
TENSILE STRENGTH	3 PCS	ISO898.1		Min. 830 N/MM2	913-913 N/MM2	3	0

ALL TESTS ARE IN ACCORDANCE WITH THE METHODS PRESCRIBED IN THE APPLICABLE ASTM/SAE/ASME/MIL-STD-120 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 :