



## GEM-YEAR TESTING LABORATORY CERTIFICATE OF INSPECTION

MANUFACTURER : GEM-YEAR INDUSTRIAL CO., LTD.  
ADDRESS : NO.8 GEM-YEAR  
ROAD, E.D.Z., JIASHAN, ZHEJIANG, P.R. CHINA

Tel: (0573)84185001(48Lines)  
Fax: (0573)84184488 84184567  
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PURCHASER : MAPTCO FASTENERS (AUST) PTY LTD  
PO. NUMBER : MAP-1941M  
COMMODITY : ISO 4017 HEX HEAD BOLT FULL THREAD CL 8.8  
SIZE : M20-P2.50X45  
LOT NO : 1B19A1099  
SHIP QUANTITY : 1,250 PCS  
HEADMARKS : GENIUS SYMBOL & 8.8  
COUNTRY OF ORIGIN : CHINA

PACKING NO : GEM200103002  
INVOICE NO : GEM/MAP-200317MEL  
PART NO : A1094  
SAMPLING PLAN :  
ASME B18.18-2017/ASTM F1470-2018  
HEAT NO : 196D6152  
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	0.4100	0.9100	0.7300	0.0160	0.0040	0.2100

**DIMENSIONAL INSPECTIONS : ACCORDING TO ISO4017-2014 TEST FACILITY: M**

SAMPLED BY : ZHONGHY

INSPECTIONS ITEM	SAMPLE	TEST METHOD	REF	SPECIFIED	ACTUAL RESULT	ACC.	REJ.
MAJOR DIAMETER	4PCS	JB/T 9151		19.6300-19.9500 MM	19.8600-19.8600 MM	4	0
WIDTH ACROSS CORNERS	4PCS	JB/T 9151		Min. 33.5300 MM	33.8200-33.8300 MM	4	0
HEIGHT	4PCS	JB/T 9151		12.2900-12.7100 MM	12.5200-12.5500 MM	4	0
NOMINAL LENGTH	15PCS	JB/T 9151		44.5000-45.5000 MM	45.0500-45.1800 MM	15	0
WIDTH ACROSS FLATS	4PCS	JB/T 9151		29.6700-30.0000 MM	29.8600-29.8700 MM	4	0
SURFACE DISCONTINUITIES	22PCS	ISO6157.3			PASSED	22	0
THREAD	15PCS	JB/T 9151		6g G0 6g NOG0	PASSED	15	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	15PCS	ISO898.1		23-34 HRC	30-32 HRC	15	0
SURFACE HARDNESS	15PCS	ASTM E384			303-321 HV	15	0
TENSILE STRENGTH	4PCS	ISO898.1		Min. 830 N/MM2	912-920 N/MM2	4	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 : \_\_\_\_\_