



# GEM-YEAR TESTING LABORATORY

## CERTIFICATE OF INSPECTION

MANUFACTURER : GEM-YEAR INDUSTRIAL CO., LTD.  
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DATE : 2020/01/07

PURCHASER : MAPTCO FASTENERS (AUST) PTY LTD  
PO. NUMBER : MAP-1941F  
COMMODITY : ISO 4017 HEX HEAD BOLT FULL THREAD CL 8.8  
SIZE : M16-P2.00X70  
LOT NO : 1B19A0943  
SHIP QUANTITY : 3,600 PCS  
HEADMARKS : GENIUS SYMBOL & 8.8  
COUNTRY OF ORIGIN : CHINA

PACKING NO : GEM191219001  
INVOICE NO : GEM/MAP-200115FRE  
PART NO : A3756  
SAMPLING PLAN :  
ASME B18.18-2017/ASTM F1470-2018  
HEAT NO : B375443A  
MATERIAL : 40ACR  
FINISH : H. T. HOT DIP GAL PER ASTM  
A153/ASTM F2329

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

Chemistry	C%	Cr%	Mn%	P%	S%	Si%
Spec. : MIN.	0.4000	0.2000	0.6000			
MAX.	0.4400	0.4000	0.9000	0.0250	0.0250	0.1000
Test Value	0.4100	0.3300	0.7400	0.0050	0.0030	0.0600

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

SAMPLED BY : FCHUN

INSPECTIONS ITEM	SAMPLE	TEST METHOD	REF	SPECIFIED	ACTUAL RESULT	ACC.	REJ.
MAJOR DIAMETER	4PCS	JB/T 9151		15.6900-15.9600 MM	15.6900-15.7400 MM	4	0
WIDTH ACROSS CORNERS	4PCS	JB/T 9151		Min. 26.7500 MM	27.3800-27.4100 MM	4	0
HEIGHT	4PCS	JB/T 9151		9.8200-10.1800 MM	9.8600-10.0200 MM	4	0
NOMINAL LENGTH	15PCS	JB/T 9151		69.4000-70.6000 MM	69.8700-70.1500 MM	15	0
WIDTH ACROSS FLATS	4PCS	JB/T 9151		23.6700-24.0000 MM	23.8000-23.8700 MM	4	0
SURFACE DISCONTINUITIES	22PCS	ISO6157.3			PASSED	22	0
THREAD	15PCS	JB/T 9151		nut	PASSED	15	0

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

SAMPLED BY : HTQI

INSPECTIONS ITEM	SAMPLE	TEST METHOD	REF	SPECIFIED	ACTUAL RESULT	ACC.	REJ.
CORE HARDNESS	15PCS	ISO898.1		22-32 HRC	28-30 HRC	15	0
SURFACE HARDNESS	15PCS	ASTM E384			278-300 HV	15	0
TENSILE STRENGTH	4PCS	ISO898.1		Min. 800 N/MM2	878-893 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.,)

SIGNATURE : \_\_\_\_\_