



**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-2025M  
 COMMODITY: ISO 4014 HEX HEAD BOLT HALF THREAD CL 10.9  
 SIZE: M16-2.00X110  
 LOT NO: 1B2062385  
 SHIP QUANTITY: 2,100 PCS  
 HEADMARKS: GENIUS SYMBOL & 10.9  
 COUNTRY OF ORIGIN: CHINA

TEL: (0573) 84185001 (48Lines)  
 FAX: (0573) 84184488 84184567  
 DATE: 2020/08/24  
 PACKING NO: GEM200804003  
 INVOICE NO: GEM/MAP-200824MEL  
 PART NO: A910  
 SAMPLING PLAN:  
 ASME B18.18-2017/ASTM F1470-2018  
 HEAT NO: C376202A  
 MATERIAL: SCM435  
 FINISH: H. T. TRIVALENT ZINC 5U HYDROGEN  
 RELEASE

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

Chemistry	C%	Cr%	Mn%	Mo%	Ni%	P%	S%	Si%
Spec.:MIN.	0.3300	0.9000	0.6000	0.1500				0.1500
MAX.	0.3800	1.2000	0.8500	0.3000	0.2500	0.0250	0.0250	0.3500
Test Value	0.3400	0.9900	0.6200	0.1800	0.0200	0.0050	0.0020	0.2100

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

SAMPLED BY: YANGLI

INSPECTIONS ITEM	SAMPLE	TEST METHOD	REF	SPECIFIED	ACTUAL RESULT	ACC	REJ
NOMINAL LENGTH	15 PCS	JB/T 9151		109.3000-110.7000 MM	110.0100-110.4000 MM	15	0
WIDTH ACROSS FLATS	4 PCS	JB/T 9151		23.6700-24.0000 MM	23.7800-23.8100 MM	4	0
MAJOR DIAMETER	4 PCS	JB/T 9151		15.6900-15.9600 MM	15.8300-15.8900 MM	4	0
BODY DIAMETER	4 PCS	JB/T 9151		15.7300-16.0000 MM	15.8200-15.8700 MM	4	0
THREAD LENGTH	15 PCS	JB/T 9151	38		42.6800-43.0000 MM	15	0
HEIGHT	4 PCS	JB/T 9151		9.8200-10.1800 MM	10.0600-10.1100 MM	4	0
SURFACE DISCONTINUITIES	22 PCS	ISO6157.3			PASSED	22	0
WIDTH ACROSS CORNERS	4 PCS	JB/T 9151		Min. 26.7500 MM	27.2100-27.3400 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: ZHAOQING

INSPECTIONS ITEM	SAMPLE	TEST METHOD	REF	SPECIFIED	ACTUAL RESULT	ACC	REJ
TENSILE STRENGTH	4 PCS	ISO898.1		Min. 1,040 N/MM2	1,095-1,103 N/MM2	4	0
CORE HARDNESS	15 PCS	ISO898.1		32-39 HRC	36-38 HRC	15	0
SURFACE HARDNESS	15 PCS	ASTM E384		Max. 390 HV	360-380 HV	15	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: