



**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-2016M  
 COMMODITY: ISO 4014 HEX HEAD BOLT HALF THREAD CL 8.8  
 SIZE: M22-2.50X90  
 LOT NO: 1B2043142  
 SHIP QUANTITY: 800 PCS  
 HEADMARKS: GENIUS SYMBOL & 8.8  
 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: A1286  
 SAMPLING PLAN:  
 ASME B18.18-2017/ASTM F1470-2018  
 HEAT NO: 20202547  
 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	0.9900	0.7000	0.0160	0.0030	0.1300

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

SAMPLED BY: ZHONGLI

INSPECTIONS ITEM	SAMPLE	TEST METHOD	REF	SPECIFIED	ACTUAL RESULT	ACC	REJ
BODY DIAMETER	3 PCS	JB/T 9151		21.6700-22.0000 MM	21.6700-22.0000 MM	3	0
WIDTH ACROSS CORNERS	3 PCS	JB/T 9151		Min. 37.7200 MM	37.7200-37.7300 MM	3	0
HEIGHT	3 PCS	JB/T 9151		13.7900-14.2100 MM	13.7900-14.2100 MM	3	0
NOMINAL LENGTH	11 PCS	JB/T 9151		89.3000-90.7000 MM	89.3000-90.7000 MM	11	0
THREAD LENGTH	11 PCS	JB/T 9151	50		50.1100-50.1200 MM	11	0
SURFACE DISCONTINUITIES	15 PCS	ISO6157.3			PASSED	15	0
MAJOR DIAMETER	3 PCS	JB/T 9151		21.6300-21.9500 MM	21.6300-21.9500 MM	3	0
WIDTH ACROSS FLATS	3 PCS	JB/T 9151		33.3800-34.0000 MM	33.3800-34.0000 MM	3	0
THREAD	11 PCS	JB/T 9151		6h GO 6h NOGO	PASSED	11	0

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

SAMPLED BY: NIESUYING

INSPECTIONS ITEM	SAMPLE	TEST METHOD	REF	SPECIFIED	ACTUAL RESULT	ACC	REJ
SURFACE HARDNESS	11 PCS	ASTM E384		Max. 365 HV	290-305 HV	11	0
CORE HARDNESS	11 PCS	ISO898.1		23-34 HRC	28-29 HRC	11	0
TENSILE STRENGTH	3 PCS	ISO898.1		Min. 830 N/MM2	880-897 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: