



**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-2029F
 COMMODITY: ISO 4014 HEX HEAD BOLT HALF THREAD CL 10.9
 SIZE: M20-2.50X160
 LOT NO: 1B2072356
 SHIP QUANTITY: 500 PCS
 HEADMARKS: GENIUS SYMBOL & 10.9
 COUNTRY OF ORIGIN: CHINA

TEL: (0573) 84185001 (48Lines)
 FAX: (0573) 84184488 84184567
 DATE: 2020/09/09
 PACKING NO: GEM200824007
 INVOICE NO: GEM/MAP-200911FRE
 PART NO: A1184
 SAMPLING PLAN:
 ASME B18.18-2017/ASTM F1470-2018
 HEAT NO: C376148A
 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	0.3600	0.9800	0.6300	0.1900	0.0200	0.0060	0.0010	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	13 PCS	JB/T 9151		159.2000-160.8000 MM	159.7000-160.4000 MM	13	0
WIDTH ACROSS FLATS	3 PCS	JB/T 9151		29.6700-30.0000 MM	29.6800-29.7300 MM	3	0
HEIGHT	3 PCS	JB/T 9151		12.2900-12.7100 MM	12.6700-12.7000 MM	3	0
THREAD LENGTH	13 PCS	JB/T 9151	52		58.6600-59.0000 MM	13	0
SURFACE DISCONTINUITIES	18 PCS	ISO6157.3			PASSED	18	0
BODY DIAMETER	3 PCS	JB/T 9151		19.6700-20.0000 MM	19.8100-19.8800 MM	3	0
WIDTH ACROSS CORNERS	3 PCS	JB/T 9151		Min. 33.5300 MM	33.8400-33.9600 MM	3	0
MAJOR DIAMETER	3 PCS	JB/T 9151		19.6300-19.9500 MM	19.7700-19.8200 MM	3	0
THREAD	13 PCS	JB/T 9151		6h GO 6h NOGO	PASSED	13	0

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

SAMPLED BY:

INSPECTIONS ITEM	SAMPLE	TEST METHOD	REF	SPECIFIED	ACTUAL RESULT	ACC	REJ
TENSILE STRENGTH	3 PCS	ISO898.1		Min. 1,040 N/MM2	1,110-1,113 N/MM2	3	0
CORE HARDNESS	13 PCS	ISO898.1		32-39 HRC	35-38 HRC	13	0
SURFACE HARDNESS	13 PCS	ASTM E384		Max. 390 HV	360-370 HV	13	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: