



**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-2022F
 COMMODITY: ISO 4014 HEX HEAD BOLT HALF THREAD CL 10.9
 SIZE: M24-3.00X180
 LOT NO: 1B2060237
 SHIP QUANTITY: 220 PCS
 HEADMARKS: GENIUS SYMBOL & 10.9
 COUNTRY OF ORIGIN: CHINA

TEL: (0573) 84185001 (48Lines)
 FAX: (0573) 84184488 84184567
 DATE: 2020/08/24
 PACKING NO: GEM200804002
 INVOICE NO: GEM/MAP-200825FRE
 PART NO: A1451
 SAMPLING PLAN:
 ASME B18.18-2017/ASTM F1470-2018
 HEAT NO: B376091A
 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	0.9700	0.6500	0.1800	0.0300	0.0100	0.0030	0.2400

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

SAMPLED BY: YANGLI

INSPECTIONS ITEM	SAMPLE	TEST METHOD	REF	SPECIFIED	ACTUAL RESULT	ACC	REJ
HEIGHT	3 PCS	JB/T 9151		14.7900-15.2100 MM	15.0800-15.1400 MM	3	0
MAJOR DIAMETER	3 PCS	JB/T 9151		23.5800-23.9500 MM	23.6900-23.7500 MM	3	0
BODY DIAMETER	3 PCS	JB/T 9151		23.6700-24.0000 MM	23.7900-23.8300 MM	3	0
WIDTH ACROSS FLATS	3 PCS	JB/T 9151		35.3800-36.0000 MM	35.4800-35.5000 MM	3	0
WIDTH ACROSS CORNERS	3 PCS	JB/T 9151		Min. 39.9800 MM	40.6000-40.6800 MM	3	0
NOMINAL LENGTH	11 PCS	JB/T 9151		179.2000-180.8000 MM	179.7900-180.3200 MM	11	0
THREAD LENGTH	11 PCS	JB/T 9151	60		67.8800-68.0000 MM	11	0
SURFACE DISCONTINUITIES	15 PCS	ISO6157.3			PASSED	15	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
TENSILE STRENGTH	3 PCS	ISO898.1		Min. 1,040 N/MM2	1,089-1,093 N/MM2	3	0
CORE HARDNESS	11 PCS	ISO898.1		32-39 HRC	35-37 HRC	11	0
SURFACE HARDNESS	11 PCS	ASTM E384		Max. 390 HV	369-380 HV	11	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: