



**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: M18-2.50X110
 LOT NO: 1B2060267
 SHIP QUANTITY: 900 PCS
 HEADMARKS: GENIUS SYMBOL & 10.9
 COUNTRY OF ORIGIN: CHINA

TEL: (0573) 84185001 (48Lines)
 FAX: (0573) 84184488 84184567
 DATE: 2020/07/31
 PACKING NO: GEM200717001
 INVOICE NO: GEM/MAP-200805FRE
 PART NO: A1049
 SAMPLING PLAN:
 ASME B18.18-2017/ASTM F1470-2018
 HEAT NO: C376267A
 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	0.3500	0.9700	0.6300	0.1900	0.0200	0.0080	0.0000	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		109.3000-110.7000 MM	109.6900-109.8900 MM	13	0
BODY DIAMETER	3 PCS	JB/T 9151		17.7300-18.0000 MM	17.7500-17.7800 MM	3	0
THREAD LENGTH	13 PCS	JB/T 9151	42		47.4100-47.8400 MM	13	0
HEIGHT	3 PCS	JB/T 9151		11.2900-11.7100 MM	11.3600-11.4100 MM	3	0
WIDTH ACROSS FLATS	3 PCS	JB/T 9151		26.6700-27.0000 MM	26.8400-26.8800 MM	3	0
SURFACE DISCONTINUITIES	18 PCS	IS06157.3			PASSED	18	0
MAJOR DIAMETER	3 PCS	JB/T 9151		17.6300-17.9500 MM	17.7400-17.7800 MM	3	0
WIDTH ACROSS CORNERS	3 PCS	JB/T 9151		Min. 30.1400 MM	30.7200-30.7500 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: TANGHAO

INSPECTIONS ITEM	SAMPLE	TEST METHOD	REF	SPECIFIED	ACTUAL RESULT	ACC	REJ
TENSILE STRENGTH	3 PCS	ISO898.1		Min. 1,040 N/MM2	1,104-1,112 N/MM2	3	0
CORE HARDNESS	13 PCS	ISO898.1		32-39 HRC	35.2-36.7 HRC	13	0
SURFACE HARDNESS	13 PCS	ASTM E384		Max. 390 HV	340-360 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: