



**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 8.8
 SIZE: M20-2.50X70
 LOT NO: 1B201C099
 SHIP QUANTITY: 640 PCS
 HEADMARKS: GENIUS SYMBOL & 8.8
 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: A1120
 SAMPLING PLAN:
 ASME B18.18-2017/ASTM F1470-2018
 HEAT NO: G1607215004
 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	0.3900	0.9800	0.7200	0.0140	0.0010	0.2200

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

SAMPLED BY: YUQIAN

INSPECTIONS ITEM	SAMPLE	TEST METHOD	REF	SPECIFIED	ACTUAL RESULT	ACC	REJ
HEIGHT	3 PCS	JB/T 9151		12.2900-12.7100 MM	12.6700-12.7000 MM	3	0
BODY DIAMETER	3 PCS	JB/T 9151		19.6700-20.0000 MM	19.7200-19.7500 MM	3	0
WIDTH ACROSS FLATS	3 PCS	JB/T 9151		29.6700-30.0000 MM	29.9100-29.9400 MM	3	0
THREAD LENGTH	11 PCS	JB/T 9151	46		51.7900-52.0500 MM	11	0
NOMINAL LENGTH	11 PCS	JB/T 9151		69.4000-70.6000 MM	69.4300-69.6000 MM	11	0
WIDTH ACROSS CORNERS	3 PCS	JB/T 9151		Min. 33.5300 MM	34.2200-34.2400 MM	3	0
MAJOR DIAMETER	3 PCS	JB/T 9151		19.6300-19.9500 MM	19.6900-19.7100 MM	3	0
SURFACE DISCONTINUITIES	15 PCS	IS06157.3			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: DAIWENTING

INSPECTIONS ITEM	SAMPLE	TEST METHOD	REF	SPECIFIED	ACTUAL RESULT	ACC	REJ
SURFACE HARDNESS	11 PCS	ASTM E384		Max. 365 HV	285-299 HV	11	0
CORE HARDNESS	11 PCS	IS0898.1		23-34 HRC	28.8-30.6 HRC	11	0
TENSILE STRENGTH	3 PCS	IS0898.1		Min. 830 N/MM2	895-899 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: