



**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-2025F
 COMMODITY: ISO 4017 HEX HEAD BOLT FULL THREAD CL 8.8
 SIZE: M20-2.50X150
 LOT NO: 1B2062304
 SHIP QUANTITY: 660 PCS
 HEADMARKS: GENIUS SYMBOL & 8.8
 COUNTRY OF ORIGIN: CHINA

TEL: (0573) 84185001 (48Lines)
 FAX: (0573) 84184488 84184567
 DATE: 2020/10/13
 PACKING NO: GEM200918002
 INVOICE NO: GEM/MAP-201014FRE
 PART NO: A1181
 SAMPLING PLAN:
 ASME B18.18-2017/ASTM F1470-2018
 HEAT NO: 20107928
 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 | 1.0000 | 0.7000 | 0.0160 | 0.0050 | 0.1400 |

DIMENSIONAL INSPECTIONS: ACCORDING TO ISO4017-2014 TEST FACILITY : M

SAMPLED BY: ZHONGLI

| INSPECTIONS ITEM | SAMPLE | TEST METHOD | REF | SPECIFIED | ACTUAL RESULT | ACC | REJ |
|-------------------------|--------|-------------|-----|----------------------|----------------------|-----|-----|
| WIDTH ACROSS CORNERS | 4 PCS | JB/T 9151 | | Min. 33.5300 MM | 33.5300-33.5400 MM | 4 | 0 |
| HEIGHT | 4 PCS | JB/T 9151 | | 12.2900-12.7100 MM | 12.2900-12.7100 MM | 4 | 0 |
| WIDTH ACROSS FLATS | 4 PCS | JB/T 9151 | | 29.6700-30.0000 MM | 29.6700-30.0000 MM | 4 | 0 |
| NOMINAL LENGTH | 15 PCS | JB/T 9151 | | 149.2000-150.8000 MM | 149.2000-150.8000 MM | 15 | 0 |
| MAJOR DIAMETER | 4 PCS | JB/T 9151 | | 19.6300-19.9500 MM | 19.6300-19.9500 MM | 4 | 0 |
| SURFACE DISCONTINUITIES | 22 PCS | ISO6157.3 | | | PASSED | 22 | 0 |
| THREAD | 15 PCS | JB/T 9151 | | 6h GO 6h NOGO | PASSED | 15 | 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 | 15 PCS | ASTM E384 | | Max. 365 HV | 312-323 HV | 15 | 0 |
| CORE HARDNESS | 15 PCS | ISO898.1 | | 23-34 HRC | 29-30 HRC | 15 | 0 |
| TENSILE STRENGTH | 4 PCS | ISO898.1 | | Min. 830 N/MM2 | 910-913 N/MM2 | 4 | 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: