



**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: M16-2.00X200
 LOT NO: 1B2072337
 SHIP QUANTITY: 750 PCS
 HEADMARKS: GENIUS SYMBOL & 10.9
 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: A961
 SAMPLING PLAN:
 ASME B18.18-2017/ASTM F1470-2018
 HEAT NO: C376206A
 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 | 0.6200 | 0.1800 | 0.0200 | 0.0100 | 0.0030 | 0.2100 |

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

SAMPLED BY: XUJIAOJIAO

| INSPECTIONS ITEM | SAMPLE | TEST METHOD | REF | SPECIFIED | ACTUAL RESULT | ACC | REJ |
|-------------------------|--------|-------------|-----|----------------------|----------------------|-----|-----|
| NOMINAL LENGTH | 13 PCS | JB/T 9151 | | 199.0800-200.9200 MM | 200.0100-200.1000 MM | 13 | 0 |
| WIDTH ACROSS FLATS | 3 PCS | JB/T 9151 | | 23.6700-24.0000 MM | 23.7100-23.7200 MM | 3 | 0 |
| MAJOR DIAMETER | 3 PCS | JB/T 9151 | | 15.6900-15.9600 MM | 15.7500-15.8000 MM | 3 | 0 |
| BODY DIAMETER | 3 PCS | JB/T 9151 | | 15.7300-16.0000 MM | 15.8000-15.8500 MM | 3 | 0 |
| WIDTH ACROSS CORNERS | 3 PCS | JB/T 9151 | | Min. 26.7500 MM | 27.3400-27.4400 MM | 3 | 0 |
| HEIGHT | 3 PCS | JB/T 9151 | | 9.8200-10.1800 MM | 10.1100-10.1300 MM | 3 | 0 |
| SURFACE DISCONTINUITIES | 18 PCS | ISO6157.3 | | | PASSED | 18 | 0 |
| THREAD LENGTH | 13 PCS | JB/T 9151 | 44 | | 48.4000-48.5400 MM | 13 | 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: JINSHENGXIA

| INSPECTIONS ITEM | SAMPLE | TEST METHOD | REF | SPECIFIED | ACTUAL RESULT | ACC | REJ |
|------------------|--------|-------------|-----|------------------|-------------------|-----|-----|
| TENSILE STRENGTH | 3 PCS | ISO898.1 | | Min. 1,040 N/MM2 | 1,085-1,103 N/MM2 | 3 | 0 |
| CORE HARDNESS | 13 PCS | ISO898.1 | | 32-39 HRC | 35-37.3 HRC | 13 | 0 |
| SURFACE HARDNESS | 13 PCS | ASTM E384 | | Max. 390 HV | 343-376 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: