



**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-1946M
 COMMODITY: ISO 4014 HEX HEAD BOLT HALF THREAD CL 10.9
 SIZE: M24-3.00X75
 LOT NO: 1B1781056
 SHIP QUANTITY: 180 PCS
 HEADMARKS: GENIUS SYMBOL & 10.9
 COUNTRY OF ORIGIN: CHINA

TEL: (0573) 84185001 (48Lines)
 FAX: (0573) 84184488 84184567
 DATE: 2020/07/04
 PACKING NO: GEM200521015
 INVOICE NO: GEM/MAP-200706 MEL
 PART NO: A1381
 SAMPLING PLAN:
 ASME B18.18-2017/ASTM F1470-2018
 HEAT NO: 17500618-3
 MATERIAL: SCM435
 FINISH: H. T. TRIVALENT ZINC 5U HYDROGEN
 RELEASE

PERCENTAGE COMPOSITION OF CHEMISTRY: TEST FACILITY :S

| Chemistry | C% | Cr% | Mn% | Mo% | P% | S% | Si% |
|------------|--------|--------|--------|--------|--------|--------|--------|
| Spec.:MIN. | 0.3300 | 0.9000 | 0.6000 | 0.1500 | | | 0.1500 |
| MAX. | 0.3800 | 1.2000 | 0.8500 | 0.3000 | 0.0250 | 0.0250 | 0.3500 |
| Test Value | 0.3400 | 0.9700 | 0.6600 | 0.1800 | 0.0120 | 0.0030 | 0.1800 |

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

SAMPLED BY : LIU LI

| INSPECTIONS ITEM | SAMPLE | TEST METHOD | REF | SPECIFIED | ACTUAL RESULT | ACC. | REJ. |
|-------------------------|--------|-------------|-----|--------------------|--------------------|------|------|
| THREAD LENGTH | 15 PCS | JB/T 9151 | 54 | | 63.2600-63.5500 MM | 15 | 0 |
| MAJOR DIAMETER | 15 PCS | JB/T 9151 | | 23.5800-23.9500 MM | 23.6500-23.7000 MM | 15 | 0 |
| BODY DIAMETER | 4 PCS | JB/T 9151 | | 23.6700-24.0000 MM | 23.7100-23.7200 MM | 4 | 0 |
| WIDTH ACROSS CORNERS | 4 PCS | JB/T 9151 | | Min. 39.9800 MM | 40.6400-40.7800 MM | 4 | 0 |
| HEIGHT | 4 PCS | JB/T 9151 | | 14.7900-15.2100 MM | 14.9500-14.9600 MM | 4 | 0 |
| NOMINAL LENGTH | 15 PCS | JB/T 9151 | | 74.4000-75.6000 MM | 74.4400-74.5500 MM | 15 | 0 |
| WIDTH ACROSS FLATS | 4 PCS | JB/T 9151 | | 35.3800-36.0000 MM | 35.6700-35.7800 MM | 4 | 0 |
| SURFACE DISCONTINUITIES | 22 PCS | ISO6157.3 | | | PASSED | 22 | 0 |
| THREAD | 15 PCS | JB/T 9151 | | 6h G0 6h N0G0 | PASSED | 15 | 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. |
|------------------|--------|-------------|-----|------------------|-------------------|------|------|
| CORE HARDNESS | 15 PCS | ISO898.1 | | 32-39 HRC | 35-36 HRC | 15 | 0 |
| SURFACE HARDNESS | 15 PCS | ASTM E384 | | Max. 390 HV | 342-360 HV | 15 | 0 |
| TENSILE STRENGTH | 4 PCS | ISO898.1 | | Min. 1,040 N/MM2 | 1,123-1,139 N/MM2 | 4 | 0 |

ALL TESTS ARE IN ACCORDANCE WITH THE METHODS PRESCRIBED IN THE APPLICABLE ASTM/SAE/ASME/MIL-STD-120 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: