



GEM-YEAR TESTING LABORATORY

CERTIFICATE OF INSPECTION

MANUFACTURER : GEM-YEAR INDUSTRIAL CO., LTD.
ADDRESS : NO.8 GEM-YEAR
ROAD,E.D.Z.,JIASHAN,ZHEJIANG,P.R.CHINA

Tel: (0573)84185001(48Lines)
Fax: (0573)84184488 84184567
DATE : 2020/01/07

PURCHASER : MAPTCO FASTENERS (AUST) PTY LTD
PO. NUMBER : MAP-1946F
COMMODITY : ISO 4014 HEX HEAD BOLT HALF THREAD CL 8.8
SIZE : M20-P2.50X130
LOT NO : 1B19BD216
SHIP QUANTITY : 420 PCS
HEADMARKS : GENIUS SYMBOL & 8.8
COUNTRY OF ORIGIN : CHINA

PACKING NO : GEM191219001
INVOICE NO : GEM/MAP-200115FRE
PART NO : A1167
SAMPLING PLAN :
ASME B18.18-2017/ASTM F1470-2018
HEAT NO : G1612246001
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 | 0.4000 | 0.9700 | 0.7100 | 0.0140 | 0.0060 | 0.2400 |

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

SAMPLED BY : XJIAOJIAO

| INSPECTIONS ITEM | SAMPLE | TEST METHOD | REF | SPECIFIED | ACTUAL RESULT | ACC. | REJ. |
|-------------------------|--------|-------------|-----|----------------------|----------------------|------|------|
| THREAD LENGTH | 13 PCS | JB/T 9151 | 52 | | 58.9400-59.0300 MM | 13 | 0 |
| MAJOR DIAMETER | 3 PCS | JB/T 9151 | | 19.6300-19.9500 MM | 19.8300-19.8800 MM | 3 | 0 |
| BODY DIAMETER | 3 PCS | JB/T 9151 | | 19.6700-20.0000 MM | 19.8000-19.8700 MM | 3 | 0 |
| WIDTH ACROSS CORNERS | 3 PCS | JB/T 9151 | | Min. 33.5300 MM | 33.9200-33.9600 MM | 3 | 0 |
| HEIGHT | 3 PCS | JB/T 9151 | | 12.2900-12.7100 MM | 12.6000-12.6800 MM | 3 | 0 |
| NOMINAL LENGTH | 13 PCS | JB/T 9151 | | 129.2000-130.8000 MM | 129.8500-130.1400 MM | 13 | 0 |
| WIDTH ACROSS FLATS | 3 PCS | JB/T 9151 | | 29.6700-30.0000 MM | 29.8100-29.8800 MM | 3 | 0 |
| SURFACE DISCONTINUITIES | 18 PCS | ISO6157.3 | | | PASSED | 18 | 0 |
| THREAD | 13 PCS | JB/T 9151 | | 6h G0 6h NOG0 | 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. |
|------------------|--------|-------------|-----|----------------|---------------|------|------|
| CORE HARDNESS | 13 PCS | ISO898.1 | | 23-34 HRC | 29.2-30.9 HRC | 13 | 0 |
| SURFACE HARDNESS | 13 PCS | ASTM E384 | | | 292-307 HV | 13 | 0 |
| TENSILE STRENGTH | 3 PCS | ISO898.1 | | Min. 830 N/MM2 | 905-919 N/MM2 | 3 | 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.



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