



**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-2036S
 COMMODITY: HEX CAP SCREW GR-8
 SIZE: 7/8-9X3-1/2 NC
 LOT NO: 1B2090632
 SHIP QUANTITY: 840 PCS
 HEADMARKS: GENIUS SYMBOL & 6 RADIAL LINES
 COUNTRY OF ORIGIN: CHINA

TEL: (0573) 84185001 (48Lines)
 FAX: (0573) 84184488 84184567
 DATE: 2020/10/16
 PACKING NO: GEM200918001
 INVOICE NO: GEM/MAP-201019SYD
 PART NO: D682
 SAMPLING PLAN:
 ASME B18.18-2017/ASTM F1470-2018
 HEAT NO: V21904409
 MATERIAL: SCM435
 FINISH: H. T. PLAIN

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 | 0.3500 | 0.9980 | 0.7800 | 0.1810 | 0.0110 | 0.0030 | 0.2000 |

DIMENSIONAL INSPECTIONS: ACCORDING TO ASME B18.2.1-2012 TEST FACILITY : M

SAMPLED BY: ZHANGHONGYUN

| INSPECTIONS ITEM | SAMPLE | TEST METHOD | REF | SPECIFIED | ACTUAL RESULT | ACC | REJ |
|-------------------------|--------|-----------------|------|--------------------|--------------------|-----|-----|
| THREAD LENGTH | 15 PCS | JIS B1071 | 50.8 | | 55.0700-55.1900 MM | 15 | 0 |
| NOMINAL LENGTH | 15 PCS | JIS B1071 | | 85.3500-88.9000 MM | 86.5200-86.7600 MM | 15 | 0 |
| WIDTH ACROSS CORNERS | 4 PCS | JIS B1071 | | 37.2200-38.5000 MM | 38.0300-38.0600 MM | 4 | 0 |
| SURFACE DISCONTINUITIES | 22 PCS | ASTM F788/F788M | | | PASSED | 22 | 0 |
| HEIGHT | 4 PCS | JIS B1071 | | 13.4900-14.3000 MM | 13.8500-13.8800 MM | 4 | 0 |
| BODY DIAMETER | 4 PCS | JIS B1071 | | 22.0000-22.2200 MM | 22.1200-22.1500 MM | 4 | 0 |
| MAJOR DIAMETER | 4 PCS | JIS B1071 | | 21.8300-22.1700 MM | 22.0300-22.0600 MM | 4 | 0 |
| WIDTH ACROSS FLATS | 4 PCS | JIS B1071 | | 32.6400-33.3200 MM | 33.0300-33.0600 MM | 4 | 0 |
| THREAD | 15 PCS | JIS B1071 | | 2A GO 2A NOGO | PASSED | 15 | 0 |

MECHANICAL PROPERTIES: ACCORDING TO SAE J 429-2014 TEST FACILITY : M

SAMPLED BY: CHENGMINGHANG

| INSPECTIONS ITEM | SAMPLE | TEST METHOD | REF | SPECIFIED | ACTUAL RESULT | ACC | REJ |
|------------------|--------|-----------------|-----|-----------------|---------------|-----|-----|
| TENSILE STRENGTH | 4 PCS | ASTM F606/F606M | | Min. 150 KSI | 165-168 KSI | 4 | 0 |
| SURFACE HARDNESS | 15 PCS | ASTM F606/F606M | | Max. 58.6 HR30N | 56-57 HR30N | 15 | 0 |
| CORE HARDNESS | 15 PCS | ASTM F606/F606M | | 33-39 HRC | 34-36 HRC | 15 | 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: