

QUALITY CERTIFICATE

NINGBO JINDING FASTENING PIECE CO., LTD

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|---------------------|---------------------------------|------------------|---------------|
| Customer: | MAPTCO FASTENERS(AUST)PTY LTD., | Date : | 2020-07-21 |
| Product: | HEX CAP SCREWS | Contract No: | 20JDMFC088A |
| Class: | 8 | Invoice No: | 2007-69183314 |
| Size: | 1-1/4-7X14 | Lot No: | 3651180026 |
| Marking: | JDF six radius | Order No. | |
| Quantity: | 0.160 mpcs | Part No. | D179 |
| Country of Origin: | CHINA | Production Date | 2020-06-06 |
| Dimensions Of SPEC: | TEST FACILITY: Manufacturer | Certificate No.: | 202006235281 |

| Inspection Items | Standard | Result | Sample | Pass |
|----------------------|---------------|---------------|--------|------|
| Visual Appearance | ----- | OK | 30 | 30 |
| Body Diameter | 1.239-1.250 | 1.240-1.241 | 20 | 20 |
| Thread | Go | 2A | OK | 20 |
| | No Go | 2A | OK | 20 |
| Width Across Flats | 1.875-1.812 | 1.849-1.854 | 20 | 20 |
| Width Across Corners | 2.165-2.066 | 2.124-2.129 | 20 | 20 |
| Major Diameter | 1.231-1.248 | 1.241-1.243 | 20 | 20 |
| Head Height | 0.813-0.749 | 0.779-0.790 | 20 | 20 |
| Total Length | 13.780-14.000 | 13.870-13.898 | 20 | 20 |
| Thread Length | mi n 3.000 | 3.058-3.081 | 20 | 20 |
| Key Engagement | / | / | 20 | 20 |
| Head Diameter | / | / | 20 | 20 |

| Mechanical Properties | | TEST FACILITY: Manufacturer | | | |
|--|-----------------|-----------------------------|----|----|--|
| CharacTeristics | Standard | Result | | | |
| Surface Hardness [30N] | max 58.6 | 54.0-54.5 | 10 | 10 | |
| Core Hardness [HRC] | 33-39 | 35.0-35.5 | 10 | 10 | |
| Wedge Strength [psi] | mi n 150000 | 166322-166757 | 8 | 8 | |
| Yield Strength , 0.2% offset [psi] | mi n 130000 | 140634-145278 | 8 | 8 | |
| Elongation [%] | mi n 12 | 14-15 | 8 | 8 | |
| Reduction Of area [%] | mi n 35 | 40.0-46.9 | 8 | 8 | |
| Proof Load [Ib] | 116400 | 116400 | 4 | 4 | |
| Impact test [Akv/J] | | | | | |
| Decarburization | N ≥ 2/3H1 HVO.3 | 368.74 357.05 352.86 | 6 | 6 | |
| HV(2) ≥ HV(1) - 30, HV(3) ≤ HV(1) + 30 | G 0.0006max | | 6 | 6 | |

| CHEMICAL COMPOSITION(%) | | TEST FACILITY: Supplier | | | | | | | | | |
|-------------------------|----------|-------------------------|------|------|-------|-------|------|------|------|------|--|
| Heat No | C | Si | Mn | P | S | Cr | Ni | Cu | Mb | B | |
| B7-32 | 0072185z | 0.41 | 0.25 | 0.85 | 0.007 | 0.005 | 1.04 | 0.04 | 0.04 | 0.23 | |
| Thickness [UM] | | | | | | | | | | | |
| Surface Coating: | BLACK | | | | | | | | | | |

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|---|-------------------------|
| Thread Specification: ASME B1.1 2008, UNIFIED INCH SCREW THREADS(UN AND UNR THREAD FORM) | |
| Sampling Dimension Specification: ASME B18.18-2017 inspection and quality assurance for high-volume machine assembly fasteners | |
| Dimension Specification: ASME B18.2.1 2012, HEX CAP SCREWS | |
| Sampling mechanical properties specification: ASTM F1470 2018 Standard Guide for Fastener Sampling for Specified Mechanical Properties and Performance Inspection | |
| Mechanical Properties: SAE J429 2014, MECHANICAL AND MATERIAL REQUIREMENTS FOR EXTERNALLY THREADED FASTENERS | |
| Surface Defect: ASTM F788/F788M-2013, SURFACE DISCONTINUITIES OF BOLTS, SCREWS, AND STUDS | |
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| The MTR shall include a statement that the products supplied are in compliance with all the requirements of the order. | |
| THE REPORT IS ISSUED ACCORDING TO ISO16228 F3.1(EN10204 3.1) | |
| Quality Control Supervisor | Quality Control Manager |



沈健秋