

# QUALITY CERTIFICATE

## NINGBO JINDING FASTENING PIECE CO., LTD

XI JINGTANG JIULONGHU NINGBO CHINA TEL: +86-574-86530122 FAX: +86-574-86530858

Customer:	MAPTCO FASTENERS(AUST)PTY LTD.,	Date :	2020-07-21
Product:	HEX CAP SCREWS	Contract No:	20JDMFC068A
Class:	8	Invoice No:	2007-69183314
Size:	1-12X4-1/2	Lot No:	3645300026
Marking:	JDF six radius	Order No.	
Quantity:	0.525 mpcs	Part No.	E605
Country of Origin:	CHINA	Production Date	2020-06-08
Dimensions Of SPEC:	TEST FACILITY: Manufacturer	Certificate No.:	202006235132

Inspection Items	Standard	Result	Sample	Pass
Visual Appearance	-----	OK	30	30
Body Diameter	0.990-1.000	0.995-0.996	20	20
Thread	Go	2A	OK	20
	No Go	2A	OK	20
Width Across Flats	1.500-1.469	1.474-1.479	20	20
Width Across Corners	1.732-1.675	1.696-1.698	20	20
Major Diameter	0.987-0.995	0.992-0.993	20	20
Head Height	0.627-0.591	0.606-0.611	20	20
Total Length	4.500-4.340	4.449-4.459	20	20
Thread Length	mi n 2.250	2.472-2.472	20	20
Key Engagement	/	/	20	20
Head Diameter	/	/	20	20

Mechanical Properties		TEST FACILITY: Manufacturer			
CharacTeristics	Standard	Result	Sample	Pass	
Surface Hardness [30N]	max 58.6	53.0-53.5	10	10	
Core Hardness [HRC]	33-39	34.0-34.5	10	10	
Wedge Strength [psi]	mi n 150000	166177-168354	8	8	
Yield Strength , 0.2% offset [psi]	mi n 130000	142665-148471	8	8	
Elongation [%]	mi n 12	14-17	8	8	
Reduction Of area [%]	mi n 35	43.1-51.7	8	8	
Proof Load [Ib]	79600	79600	4	4	
Impact test [AkV/J]					
Decarburization	N ≥ 2/3H1 HVO.3	356.43 363.63 368.95	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	
XGML40CR-26 S11910155XX	0.38	0.22	0.62	0.016	0.003	0.95		0.02			
Thickness [UM]										20	
Surface Coating:	BLACK										

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	
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