

## QUALITY CERTIFICATE

NINGBO JINDING FASTENING PIECE CO., LTD

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Customer:	MPTCO FASTENERS(AUST)PTY LTD.,	Date :	2020-07-21
Product:	ISO4014	Contract No:	20JDMFC088A
Class:	10.9	Invoice No:	2007-69183314
Size:	16X250	Lot No:	3651180005
Marking:	JDF 10.9	Order No.	
Quantity:	1.020 mpcs	Part No.	A1787
Country of Origin:	CHINA	Production Date	2020-06-17
Dimensions Of SPEC:	TEST FACILITY: Manufacturer	Certificate No.:	202007238989

Inspection Items		Standard	Result	Sample	Pass					
Visual Appearance		-----	OK	30	30					
Body Diameter		15.57-16	15.78-15.79	20	20					
Thread	Go	6hT	OK	20	20					
	No Go	6gZ	OK	20	20					
Width Across Flats		24-23.16	23.94-24.00	20	20					
Width Across Corners		min 26.17	27.21-27.39	20	20					
Major Diameter		15.682-15.962	15.83-15.85	20	20					
Head Height		9.71-10.29	10.08-10.16	20	20					
Total Length		247.7-252.3	250.1-250.3	20	20					
Thread Length		min 57.	58.48-58.50	20	20					
Key Engagement		/	/	20	20					
Head Diameter		/	/	20	20					
Mechanical Properties TEST FACILITY: Manufacturer										
CharacTeristics		Standard	Result							
Core Hardness	[HRC]	32-39	35-35.5	10	10					
Wedge Strength	[Mpa]	min 1040	1094-1126	8	8					
Tensile Strength	[Mpa]	min 1040	1106-1115	8	8					
Yield Strength ,0.2% offset	[Mpa]	min 940	1005-1008	8	8					
Elongation	[%]	min 9	12.1-12.3	8	8					
Reduction Of area	[%]	min 48	54.5-54.8	8	8					
Proof Load	[kN]	130	130	4	4					
Impact test	[Akv/J]									
Decarburization		$N \geq 2/3H1$ HV0.3	351.40 358.42 356.22	6	6					
HV(2) $\geq$ HV(1) -30, HV(3) $\leq$ HV(1) +30		G 0.015max		6	6					
CHEMICAL COMPOSITION(%) TEST FACILITY: Supplier										
Heat No	C	Si	Mn	P	S	Cr	Ni	Cu	Mb	B
XGML40CR-17 E21807803	0.43	0.23	0.74	0.012	0.003	1.036	0.015	0.012		
Thickness	[UM]	min 5			11.7-14.3		20	20		
Surface Coating:	ZPCr3+ 5 $\mu$ m (coating test method: X ray according to ISO3497-2000 standard test method for measurement of coating thickness by X-Ray spectrometry)									
Thread Specification: ISO 965-2 1998, PART 2: LIMITS OF SIZES FOR GENERAL PURPOSE EXTERNAL AND INTERNAL SCREW THREADS - MEDIUM QUALITY										
sampling dimension specification: ISO3269 2000 inspection and quality assurance for high-volume machine assembly fasteners										
Dimension Specification: ISO 4014-2011, HEXAGON HEAD BOLTS - PRODUCT GRADES A AND B										
sampling mechanical properties specification: ISO3269 2000 Standard Guide for Fastener Sampling for Specified Mechanical Properties and Performance Inspection										
Mechanical Properties: ISO 898-1 2013, MECHANICAL PROPERTIES OF FASTENERS MADE OF CARBON STEEL AND ALLOY STEEL -PART 1: BOLTS, SCREWS AND STUDS										
Surface Defect: ISO 6157-1:1988, FASTENERS - SURFACE DISCONTINUITIES -PART 1: BOLTS, SCREWS AND STUDS FOR GENERAL REQUIREMENTS										
Plating Specification: ISO 4042-2018, FASTENERS - ELECTROPLATED COATINGS										
The M/R 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