

## QUALITY CERTIFICATE

NINGBO JINDING FASTENING PIECE CO., LTD

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

Customer:	MPTCO FASTENERS(AUST)PTY LTD.,	Date :	2020-07-21
Product:	ISO4014	Contract No:	20JDMFC088A
Class:	12.9	Invoice No:	2007-69183314
Size:	20X60	Lot No:	3651180008
Marking:	JDF 12.9	Order No.	
Quantity:	1.300 mpcs	Part No.	A6605
Country of Origin:	CHINA	Production Date	2020-06-30
Dimensions Of SPEC:	TEST FACILITY: Manufacturer	Certificate No.:	202007236558

Inspection Items		Standard	Result	Sample	Pass					
Visual Appearance		-----	OK	30	30					
Body Diameter		19.67-20	19.77-19.81	20	20					
Thread	Go	6gT	OK	20	20					
	No Go	6gZ	OK	20	20					
Width Across Flats		30-29.67	29.71-29.82	20	20					
Width Across Corners		min 33.53	33.96-34.17	20	20					
Major Diameter		19.623-19.958	19.79-19.82	20	20					
Head Height		12.285-12.715	12.34-12.51	20	20					
Total Length		59.4-60.6	60.08-60.17	20	20					
Thread Length		min 46.	48.38-48.38	20	20					
Key Engagement		/	/	20	20					
Head Diameter		/	/	20	20					
Mechanical Properties TEST FACILITY: Manufacturer										
CharacTeristics		Standard	Result							
Core Hardness	[HRC]	39-44	41.5-42.0	10	10					
Wedge Strength	[Mpa]	min 1220	1311-1326	8	8					
Tensile Strength	[Mpa]	min 1220	1323-1325	8	8					
Yield Strength ,0.2% offset	[Mpa]	min 1100	1152-1161	8	8					
Elongation	[%]	min 8	9.8-10.4	8	8					
Reduction Of area	[%]	min 44	46.5-47.5	8	8					
Proof Load	[kN]	238	238	4	4					
Impact test	[AkV/J]									
Decarburization		E≥3/4H1 HV0.3	415.41 396.41 412.71	6	6					
HV(2)≥HV(1)-30, HV(3)≤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
SCM35-20 E12003592XA	0.34	0.19	0.76	0.012	0.002	1.03	0.02	0.02	0.18	
Thickness	[UM]						20		20	
Surface Coating:	BLACK									
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										
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