



Bremick Pty Ltd

ABN 68 000 496 131

290 Kurrajong Road

Prestons 2170 NSW

PO Box 6070

Alexandria NSW 2015

Tel: +61 2 8332 1501

Fax: +61 2 9690 1474

ATTESTATION OF PRODUCT CONFORMITY

TEST REPORT NUMBER: 48999-20140-B1-2106401

DATE OF ISSUE: 15/09/2022

CERTIFICATE NUMBER: 00120Q31689R6M/3302

Bremick Fasteners manufactured K0 8.8 STRUCTURAL ASSEMBLIES M20 x 140, job number 48999 to meet the technical requirements of AS/NZS 1252.1:2016, and comply with the verification testing requirements of AS/NZS 1252.2:2016.

Initial Type Third Party Testing has been conducted by Ningbo Zhongji Inspection of Machinery Parts Co, Ltd, an ILAC accredited laboratory.

The Assembly Test requirements (as required by AS/NZS1252.2:2016) have also been conducted by the same ILAC Laboratory.

The remainder of the testing requirements for AS/NZS 1252.2:2016 have been performed by the Bremick NATA accredited Laboratory that complies to ISO/IEC 17025. The Bremick NATA accreditation number is 15567.

Product K0 8.8 STRUCTURAL ASSEMBLIES M20 x 140, job number 48999 has been tested and complies with AS/NZS 1252.1:2016 and AS/NZS 1252.2:2016 and are supported by the attached documentation.

Authorised Bremick representative

Afshin Mohammadiazar,
Quality and Technical Manager

CERTIFICATE OF CONFORMITY OF FACTORY PRODUCTION CONTROL

This certificate is issued to:

Manufacturer: Bremick PTY LTD
approved factory No.2

In compliance with the Construction Products (Amendment etc.) (EU Exit) Regulations 2020, UK Statutory Instrument 2020 No. 1359, this certificate applies to the construction product:

High-strength Structural Bolting Assemblies for Preloading

This certificate attests that all provisions concerning the assessment and verification of constancy of performance and the performances described in Annex ZA of the following standard(s):

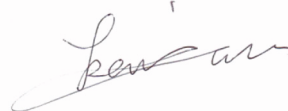
**EN 14399-1:2015 High-strength Structural Bolting Assemblies for Preloading
- Part 1: General Requirements**

under system 2+ are applied and that the factory production controls fulfil all the prescribed requirements set out above.

The attached Schedule, of the same date, details the manufacturing location(s), harmonised product standard and product parameters and shall form a part of this certificate.

"This Certificate will remain valid as long as the test methods and/or factory production control requirements included in the harmonised standard, used to assess the performance of the declared characteristics, do not change, and the product, and the manufacturing conditions in the plant are not modified significantly."

Certificate No.:	0038/CPR/BJG00001596/A
Original Approval:	1 September 2022
Current Issue:	1 September 2022
Certificate Expiry:	31 August 2025
Approved Body No.	0038



Kevin Wu for and on behalf of LRQA Verification Limited

CERTIFICATE SCHEDULE
0038/CPR/BJG00001596/A

Manufacturer: Bremick PTY LTD
approved factory No.2

Manufacturing Location and Products	Standard, Grade and Size
Bremick PTY LTD approved factory No.2	
	EN14399 – 3 (Finish)
Bolt Nut	M (12-36) X (35-200) - 8.8/10.9 - HR M (12-36) - 8/10 - HR
	EN14399 - 4 (Finish)
Bolt Nut	M (12-36) X (35-200) - 10.9 - HV M (12-36) – 10 - HV
	EN14399 – 5 (Finish)
Washer	D (12-36)
	EN14399 – 6 (Finish)
Washer	D (12-36)
[Finish]: coating type: SC, HDG, BZP, BLACK, DACROME C	

Schedule Issue:	01
Date of Schedule Issue:	1 September 2022
Approved Body No.	0038

Kevin Wu for and on behalf of LRQA Verification Limited

Structural Assembly K0 Range

TEST REPORT No: 48999-20140-B1-2106401 DATE OF ISSUE: 15/09/2022 HEAD No:

Product Information

CODE	K08MG201401	JOB NUMBER	48999
DESCRIPTION	K0 8.8 STRUCTURAL ASSEMBLIES M20 x 140	MANUFACTURE LOT QTY	1320
STANDARD	AS 1252.1-2016	TEST QTY	5
QUALITY SYSTEM	GB/T19001-2016/ISO9001:2015	CERTIFICATE NUMBER	00120Q31689R6M/3302

Chemical Composition Complies to ISO898.1-2/AS4291.1-2

PART	HEAT No	C %	Mn %	P %	S %	B %
REQUIRED		0.25-0.55	N/A	0.025 max	0.025 max	0.003 max
BOLT	B1-2106401	0.38	0.72	0.013	0.007	0.0002
REQUIRED		0.58 max	0.25 min	0.060 max	0.150 max	N/A
NUT	4-18119	0.33	0.7	0.016	0.004	0
REQUIRED		N/A	N/A	N/A	N/A	N/A
WASHER	926215	0.47	0.71	0.017	0.006	0

Mechanical Properties Tested to AS/NZS1252.1-2016 Table B1

BOLT			NUT		
TEST	REQUIREMENT	RESULT	TEST	REQUIREMENT	RESULT
Hardness	d <= 16mm 22-32 HRC d > 16mm 23-34 HRC	31	Hardness	24-36 HRC	32
Wedge Test 6 °	d <= 16mm 800MPa d > 16mm 830 MPa	923	Proof Stress (min)	1165 MPa	PASS
Yield	660 MPa	736.8	WASHER		
Proof Stress	d <= 16mm 580 MPa d > 16mm 600 MPa	PASS	Hardness	33-41 HRC	39

Hardness Test to ASTM E18 - Wedge test and proof load to ISO 898-1, Nut proof load test to AS 1252.1-2016

Assembly Test Tested to AS/NZS1252.1-2016

TEST CONDITIONS				REQUIREMENT			RESULTS		
CLAMP LENGTH (mm)	No. OF SHIMS	ROTATION SPEED	LUBRICATION CONDITIONS	BOLT LENGTH	MIN NUT Rotation °	TENSION kN MINIMUM	SAMPLE No.	NUT ROTATION DEGREES	BOLT TENSION (kN)
108	2	3	Dry to touch	>3d=7d	240	183	SAMPLE 1	263.9	201.1
							SAMPLE 2	263.9	195
							SAMPLE 3	263.9	198
							SAMPLE 4	263.9	198
							SAMPLE 5	263.9	198

Visual, Dimensions, Coating & Markings

VISUAL INSPECTION ISO 6157-1. 2.		DIMENSIONS AS/NZS1252-2016	COATING COMPLIES TO AS/NZS1214 REQUIREMENT 50 min		MARKINGS
PART			TYPE	Av µm	
BOLT	PASS	PASS	HDG	66	Bolt : BF 8.8 THREE RADIAL LINES
NUT	PASS	PASS	HDG	62	Nut : BF 8 THREE ARC LINES
WASHER	PASS	PASS	HDG	63	Washer : THREE NIBS

This certificate complies with AS/NZS1252.1-2016
The results relate only to the item tested

Name: Afshin Mohammadiazar
Position: Quality Manager

Signature :



TEST REPORT

TEST REPORT No: 48999-20140-B1-2106401

DATE OF ISSUE: 15/09/2022

PRODUCT DETAILS

ITEM CODE	K08MG201401	DESCRIPTION	K0 8.8 STRUCT ASS GAL M20 X 140
BOLT HEAT No.	B1-2106401	MATERIAL STANDARD	AS/NZS 1252-2016
NUT HEAT No.	4-18119	JOB No.	48999
WASHER HEAT No.	926215	HEAD MARK	

BOLT

PROOF LOAD

TEST DATE: 15/11/2022

DESCRIPTION	Proof load testing of class 8.8 Bolt to SOP 22-07, AS/NZS 1252.1 and ISO 898.1				
TEST METHOD	Proof load to ISO 898.1 and ISO 6892-1				TEST TEMP °C
REQUIREMENTS	Minimum hold time 15 seconds - min proof load			147.00 kN	22
	PROOF LOAD (Kn)	INITIAL LENGTH (mm)	FINAL LENGTH (mm)	CHANGE (mm)	COMPLIANCE
SAMPLE 1	PASS	139.69	139.69	0.00	COMPLIES
SAMPLE 2	PASS	139.55	139.55	0.00	COMPLIES
SAMPLE 3	PASS	139.31	139.31	0.00	COMPLIES

WEDGE LOAD TENSILE TEST

TEST DATE: 16/11/2022

DESCRIPTION	Wedge test of class 8.8 Bolt to SOP 22-05, AS/NZS 1252.1 and ISO 898.1				
TEST METHOD	Wedge test ISO 898.1 and ISO 6892-1				TEST TEMP °C
	TENSILE STRENGTH Mpa (Rm)	ULTIMATE TENSILE LOAD Kn (Fm)	WEDGE ANGLE	FRACTURE LOCATION	COMPLIANCE
REQUIREMENTS	830 MIN	203 MIN	10	THREAD	
SAMPLE 1	1078	264.20	10	THREAD	COMPLIES
SAMPLE 2	1027	251.50	10	THREAD	COMPLIES
SAMPLE 3	984	241.10	10	THREAD	COMPLIES

HARDNESS

TEST DATE: 18/11/2022

DESCRIPTION	K0 8.8 STRUCT ASS GAL M20 X 140- AS/NZS 1252-2016				
TEST METHOD	Rockwell Hardness test using scale "C" from 98N to 147N by the methods of ASTM E18				
REQUIREMENTS	d <= 16mm 22-32 HRC - d > 16mm 23-34 HRC				
	AVERAGE * HARDNESS (HRC)	COMPLIANCE	SAMPLE	AVERAGE * HARDNESS (HRC)	COMPLIANCE
SAMPLE 1	29	COMPLIES	SAMPLE 5	30	COMPLIES
SAMPLE 2	33	COMPLIES	SAMPLE 6	30	COMPLIES
SAMPLE 3	31	COMPLIES	SAMPLE 7	31	COMPLIES
SAMPLE 4	30	COMPLIES	SAMPLE 8	31	COMPLIES

* Average of 3 measurements per sample



M5/M7 Logistics Park, Warehouse 4B,
290 Kurrajong Road, Prestons NSW 2170

Accredited for compliance with
ISO/IEC 17025 - testing.
NATA Accredited Laboratory 15567



TEST REPORT

TEST REPORT No: 48999-20140-B1-2106401

DATE OF ISSUE: 15/09/2022

PRODUCT DETAILS

ITEM CODE	K08MG201401	DESCRIPTION	K0 8.8 STRUCT ASS GAL M20 X 140
BOLT HEAT No.	B1-2106401	MATERIAL STANDARD	AS/NZS 1252-2016
NUT HEAT No.	4-18119	JOB No.	48999
WASHER HEAT No.	926215	HEAD MARK	

NUT

PROOF LOAD

TEST DATE: 15/11/2022

DESCRIPTION	Proof load testing of Nut to SOP 22-09, AS/NZS 1252.1 and ISO 898.2		TEST TEMP °C
TEST METHOD	Proof load to ISO 898.2 and ISO 6892-1		23
REQUIREMENTS	Minimum hold time 15 seconds - Minimum proof load		285.40 kN
	PROOF LOAD (Kn)	NUT REMOVED BY FINGER	COMPLIANCE
SAMPLE 1	PASS	YES	COMPLIES
SAMPLE 2	PASS	YES	COMPLIES
SAMPLE 3	PASS	YES	COMPLIES

HARDNESS

TEST DATE: 17/11/2022

DESCRIPTION	K0 8.8 STRUCT ASS GAL M20 X 140- AS/NZS 1252-2016				
TEST METHOD	Rockwell Hardness test using scale "C" from 98N to 147N by the methods of ASTM E18				
REQUIREMENTS	24 - 36 HRC				
	AVERAGE * HARDNESS (HRC)	COMPLIANCE	SAMPLE	AVERAGE * HARDNESS (HRC)	COMPLIANCE
SAMPLE 1	29	COMPLIES	SAMPLE 5	28	COMPLIES
SAMPLE 2	27	COMPLIES	SAMPLE 6	28	COMPLIES
SAMPLE 3	28	COMPLIES	SAMPLE 7	29	COMPLIES
SAMPLE 4	28	COMPLIES	SAMPLE 8	29	COMPLIES

* Average of 3 measurements per sample



M5/M7 Logistics Park, Warehouse 4B,
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TEST REPORT

TEST REPORT No: 48999-20140-B1-2106401

DATE OF ISSUE: 15/09/2022

PRODUCT DETAILS

ITEM CODE	K08MG201401	DESCRIPTION	K0 8.8 STRUCT ASS GAL M20 X 140
BOLT HEAT No.	B1-2106401	MATERIAL STANDARD	AS/NZS 1252-2016
NUT HEAT No.	4-18119	JOB No.	48999
WASHER HEAT No.	926215	HEAD MARK	

WASHER

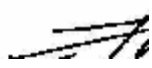
HARDNESS

TEST DATE: 17/11/2022

DESCRIPTION	K0 8.8 STRUCT ASS GAL M20 X 140- AS/NZS 1252-2016				
TEST METHOD	Rockwell Hardness test using scale "C" from 98N to 147N by the methods of ASTM E18				
REQUIREMENTS	33 - 41 HRC				
	AVERAGE * HARDNESS (HRC)	COMPLIANCE	SAMPLE	AVERAGE * HARDNESS (HRC)	COMPLIANCE
SAMPLE 1	34	COMPLIES	SAMPLE 5	34	COMPLIES
SAMPLE 2	34	COMPLIES	SAMPLE 6	33	COMPLIES
SAMPLE 3	33	COMPLIES	SAMPLE 7	33	COMPLIES
SAMPLE 4	34	COMPLIES	SAMPLE 8	33	COMPLIES

* Average of 3 measurements per sample

Signed:


Afshin MohammadiazarAccredited for compliance with
ISO/IEC 17025 - testing.
NATA Accredited Laboratory 15567

Issue Date: 15/09/2022

Note that this report is based on the products supplied to the laboratory and it remains the responsibility of the client to ensure the samples presented are representative of the whole batch. Reproduction of this report, other than in its entirety, must be approved by Bremick Pty Ltd

The results relate only to the item tested



M5/M7 Logistics Park, Warehouse 4B, 290 Kurrajong Road, Prestons NSW 2170



中国认可
国际互认
检测
TESTING
CNAS L4800



161120341352

Ningbo Zhongji Inspection of Machinery Parts Co.,Ltd

TEST REPORT

Report number: ZMTCB202208020

Page 1 of 2

Receiving Date:	03, Aug., 2022
Test Date:	04, Aug., 2022~05, Aug., 2022
Sample Source:	Supplied by client
Name of Client	Bremick Pty Ltd
Address	Unit F1, 62 Maddox St, Alexandria NSW 2015
Test Requirements	AS/NZS 1252.1:2016 The technical requirement supplied by client

Description	K0 8.8 STRUCT ASS GAL M20 X 140	Number of Sample(s)	3 PCS
Dimension	M20 X 140	Class	Bolt class 8.8 Nut class 8
Part Number	K08MG201401	PO No	48999
TRACE No	NL22-8-20	Heat Treatment Lot number	NL220706109
(Steel) Heat number	B:B1-2106401 N:4-18119		
The information above is provided by the client. Our laboratory is not responsible for its authenticity			

Approved by
Manager

同银

Reviewed by
Engineer

刘立立

Test by
Engineer

张



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国际互认
检测
TESTING
CNAS L4800



Ningbo Zhongji Inspection of Machinery Parts Co.,Ltd

TEST REPORT

Report number: ZMTCB202208020

Page 2 of 2

Report Number: ZMTCSBZ2306020

Page 2 of 2

NO.	Test Items	Test Method	Requirement	Test Results		Item Conclusion
1	Assembly test	EN 14399-2:2015	Bolt tension force ≥ 183 kN Nut rotation Degrees ≥ 270°	1A	222.9 kN 270°	Pass
				2A	184.2 kN 270°	Pass
				3A	229.8 kN 270°	Pass
	Equipment : Microcomputer controlled torsion tester; ZMTC/SB-Z-JC-110 WNJ-3000; Validity Of Calibration: 2023.07.04					

THE END



常熟市龙腾特种钢有限公司
CHANGSHU LONGTENG SPECIAL STEEL CO., LTD

产品质量证明书

QUALITY CERTIFICATE

订货单位: 宁波富林金属材料有限公司 (高线)

Purchaser:

产品名称: 热轧圆盘条

Product Name:

产品执行标准: Q/320581FBA007

Dimensional Standard:

质保书编号: T21062300035

Certificate No.

日期: 2021年06月23日

Date:

序号 No.	批号 Batch No.	炉号 Heat No.	牌号 Steel grade	规格Size (mm)	件数pcs	重量 Weight (t)	化 学 成 分 Chemical composition (%)											气 体 含 量 (ppm)																				
							C	Si	Mn	P	S	Cr	Ni	Cu	Mo	Al	Als	Ti	V	Nb	B	Ceq	[H]	[O]	[N]													
1	CL21060125	B1-2106401	35Acr	Φ20	2	4.431	0.38	0.05	0.72	0.013	0.007	0.28	0.02	0.03	0.007	0.045	0.042	0.002	0.0015	0.0012	0.0002																	
2	CL21060127	B1-2106404	35Acr	Φ20	2	4.462	0.36	0.04	0.74	0.017	0.008	0.30	0.02	0.02	0.004	0.043	0.041	0.003	0.0019	0.0013	0.0003																	
3	CL21060126	B2-2106147	35Acr	Φ20	11	24.479	0.34	0.04	0.69	0.015	0.010	0.28	0.02	0.02	0.006	0.045	0.044	0.002	0.0015	0.0011	0.0002																	
4																																						
5																																						
6																																						
序号 No.	低倍组织 (级) Macrostructure			屈服强度 Yield Strength (N/mm ²)	抗拉强度 Tensile strength Rm (N/mm ²)	断后伸长率 Elongation %	断面收缩率 Reduction on %	弯曲试验180℃ Bend test d=0 d=0.5a	冲击功 Charpy impact KU ₂ /KV ₂ (J)	硬度Hardness			非金属夹杂物 (级) Nonmetal Impurity										晶粒度 (级) Grain Size	脱碳层 Decarburization (mm)														
	一般疏松 General Porosity	中心疏松 Center Porosity	偏析 Segregation							HBW	HRC	HRB	A	B	C	D	DS	粗系 H	细系 T	粗系 H	细系 T	粗系 H			细系 T													
1				366;365	605;600	24;24	35;37					HRB87.8																										
2				341;343	595;597	23;24	44;42					HRB86.1																										
3				364;369	601;606	25;24	41;40					HRB85.9																										
4																																						
5																																						
6																																						
综合判断 Final Result				质量检验负责人: Chief of Check: 马											注意事项 Notes: 1、交货状态(Condition of supply): 热轧(hot rolled) 2、表面及外形尺寸(Surface and size): 合格(Qualified) 3、无质量证明书专用印记无效。Invalid without Seal. 4、如果有异议请及时告知批号、牌号, 保留实物并通知我公司。When there is any complain, you kindly requested to inform the batch No., Steel Grade and keep the materials. 5、4月份到10月份时效7天, 其他时间时效15天之后使用。from April to October the aging time is 7 days, for others, aging time is 15 days.											地址: 江苏省常熟市梅李镇通港工业园华联路118号 Add: No.118 Hualian Road, Tonggang Industrial Park, Meili Town, Changshu, Jiangsu Province, CHINA 邮编(PC): 215511 E-mail: lttg@littg.cn 电话(Tel): +86-512-52061656 www.lttg.cn											LT/GX-R-JY-03	



地址: 浙江省衢州市经济开发区
ADD: Economic Development Zone, Quzhou, Zhejiang
TEL: (0570) 8055724 邮编: 324004
FAX: (0570) 8055725 POST CODE

产品名称:	热轧无扭控冷盘条	钢号:	
Product Name		Grade	
执行标准:	JISG3507-1	总重量:	
Standard		Weight	
订货单位:		总件数:	
Purchaser		Number	

合同号:	SWRCH35K
Contract NO.	
交货状态:	39, 820
Delivery Condition	
用途:	18
Application	

热轧/建议时效15日后
使用

出库单号:	2106170319
Delivery NO.	
质保书号:	2106170506
Certificate NO.	
签发日期:	2021年6月17日
Date of	

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质检印章 SEAL

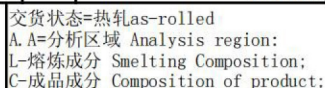
江建霞

签证VISA:



MILL TEST CERTIFICATE

订单 项次 ORDR ITEM NO.	轧制序号 LOT NO.	熔炼号 HEAT NO.	压缩 比 RATIO	规格 DIMENSIONS	数量 QTY	重量 WEIGHT t	分析 区域 A. A	化学成分 CHEMICAL ANALYSIS (wt%)							
								C	Si	Mn	P	S	Cu	Ni	Cr
								X10 ⁻²	X10 ⁻²	X10 ⁻²	X10 ⁻³	X10 ⁻³	X10 ⁻²	X10 ⁻²	X10 ⁻²
012	F10950501	945168	43	3.25mm*160mm*Coil	4	14.888	L	47	24	66	16	8	1	2	3
012	F10950502	926215	43	3.25mm*160mm*Coil	2	6.344	L	47	22	71	17	6	2	2	4
012	F10950503	942223	43	3.25mm*160mm*Coil	3	9.452	L	47	20	71	17	7	1	1	3
012	F10950504	928132	43	3.55mm*181mm*Coil	5	16.472	L	46	21	59	16	4	2	2	3
012	F10950505	968291	43	3.55mm*181mm*Coil	3	9.635	L	49	23	70	17	3	2	3	4
TOTAL:															



外观和尺寸检验均合格 VISUAL INSPECTION(SURFACE) AND DIMENSION CHECK: OK 注: SOC 品牌号以质量证明书为准

兹证明本文所列产品，均依材料标准制造及试验，并符合标准及订单技术要求，不含有辐射元素。

WE HEREBY CERTIFY THAT MATERIAL DESCRIBED HEREIN HAS BEEN MANUFACTURED AND TESTED WITH SATISFACTORY RESULTS IN ACCORDANCE WITH THE REQUIREMENTS OF THE ABOVE MATERIAL SPECIFICATION & P. O. THE PRODUCTS DON'T CONTAIN RADIOCHEMICAL

质量负责人
CHIEF OF INSPECTOR

检验站站长
INSPECTION STATION

5

