

QUICKBOLT – A DIVISION OF QUICKSCREWS INTERNATIONAL CORPORATION TEST REPORT

SCOPE OF WORK

WATER TESING ON LOW PROFILE QUICKBOLT, 5-1/4" WITH 3" WASHER

REPORT NUMBER

H4949.02-301-32 R3

TEST DATES

10/27/17 - 11/03/17

ISSUE DATE

REVISED DATE

11/08/17

10/14/19

RECORD RETENTION END DATE

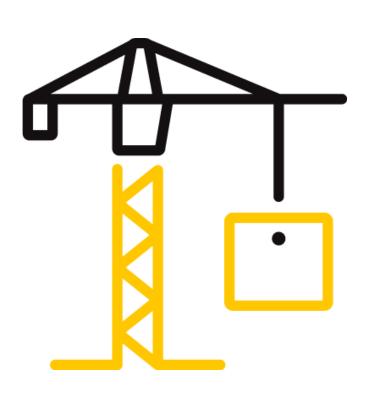
11/03/22

PAGES

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TEST REPORT FOR QUICKBOLT — A DIVISION OF QUICKSCREWS INTERNATIONAL CORPORATION

Report No.: H4949.02-301-32 R3

Date: 11/30/17

REPORT ISSUED TO

QUICKBOLT - A DIVISION OF QUICKSCREWS INTERNATIONAL CORP

5830 Las Positas Road Livermore, California 94551

SECTION 1

SCOPE

Intertek Building & Construction (B&C) was contracted by QuickBOLT – A Division of Quickscrews International Corporation, Livermore, California to perform testing in accordance with ASTM E331, ASTM E331 (modified), and ASTM E2140 (modified), on their QuickBOLT with **three**-inch EPDM backed washer. Results obtained are tested values and were secured by using the designated test methods. Testing was conducted at Intertek test facility in Fresno, California.

This report does not constitute certification of this product nor an opinion or endorsement by this laboratory.

SECTION 2

SUMMARY OF TEST RESULTS

TITLE	RESULTS
ASTM E331 @ 15.00psf	No Leakage
ASTM E331 (modified), 120 min @ 30.0psf	No Leakage
ASTM E2140 (modified), 6" water column for 7 days	No Leakage

For INTERTEK B&C:

WJR:ss/ms

COMPLETED BY: Erick Caldera

REVIEWED BY: Tyler Westerling, P.E.

TITLE: Senior Project Engineer

SIGNATURE: Digitally Signed by: Erick Caldera
DATE: DATE: 10/14/19

Tyler Westerling, P.E.

Senior Project Engineer

DATE: 10/14/19

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SECTION 3

TEST METHODS

The specimens were evaluated in general accordance with the following:

ASTM E331-00(2016), Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference

ASTM E331-00(2016) - (modified), Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference

Note: the test time was extended beyond the time stated in the standard.

ASTM E2140-01(2017) - (modified), Standard Test Method for Water Penetration of Metal Roof Panel Systems by Static Water Pressure Head

Note: The test time was extended beyond the time stated in the standard.

SECTION 4

INSTALLATION

Test specimen was provided by the client. Representative samples of the test specimens will be retained by Intertek B&C for a minimum of five years from the test completion date.

A test roof was constructed using 2×10 and 2×4 lumber with a piece of rigid, clear plastic over the top. The specimens were then installed through a piece of generic asphalt roof shingle according to the manufacturer's instructions with provisions to observe any water leakage.

SECTION 5

EQUIPMENT

Туре	Manufacturer	Asset Number
Control Panel	Intertek-ATI	Y003301
Spray Rack	Intertek-ATI	63331

SECTION 6

LIST OF OFFICIAL OBSERVERS

NAME	COMPANY
Tyler Westerling, P.E	Intertek B&C
William Jay Ratliff	Intertek B&C



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SECTION 7

TEST SPECIMEN DESCRIPTION

Product Type: Solar Panel Mounting Point for Asphalt Roofs

Name: QuickBOLT

Applicable Kit Numbers: 17666, 17667, 17668

COMPONENT	MATERIAL	DESCRIPTION
5.25 QuickBOLT (Part #17664)	Stainless Steel	5-1/4" overall length, stainless steel hanger bolt. One end was a $5/16$ " dia. X 4" Lag bolt, the other end was a $5/16$ -18 bolt with a 6mm hex head. The ends of the bolt were separated by an integral 12mm dia. Flange.
Nut (Part # 15876)	Stainless Steel	5/16 – 18 Hex serrated flange nut.
Low Profile L-Foot (Part # 15894)	Aluminum	1-1/2 x 3-5/16" aluminium angle cut 1-1/2" wide. A 9mm countersunk hole was drilled on the bottom for mounting to the hanger bolt.
QuickBOLT Washer (Part # 17669)	Stainless Steel	3" diameter 1/32" thick dished washer painted and backed with a 1/8" thick layer of EDPM rubber. A 5/16" hole was punched through the center.

Optional/Alternative kit numbers: 17671, 17672, 17673, 17679, 17680, 17681, 17687, 17688

COMPONENT	PART NUMBER	DESCRIPTION
7 QuickBOLT	17670	7" QuickBOLT
8 QuickBOLT	17678	8" QuickBOLT
9 QuickBOLT	17686	9" QuickBOLT
L-Foot	15794	Low profile L-Foot, Black
L-Foot	15891	Aluminum offset L-Foot
L-Foot	15891blk	Aluminum offset L-Foot, Black

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SECTION 8

TEST RESULTS

The temperature during testing was 18-24°C (65-75°F). The results are tabulated as follows:

TITLE OF TEST	RESULTS	ALLOWED	NOTE
ASTM E331 @ 15.0psf	No leakage	No Leakage	1
ASTM E331 (modified) @ 30.0psf	No leakage	No Leakage	2
ASTM E2140 (modified) @ 6" static water column	No leakage	No Leakage	3

Note 1: The test was conducted for a period of 15 minutes.

Note 2: The test was conducted for a period of 120 minutes.

Note 3: The test was conducted for a period of 7 days.

End of Test Results.

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SECTION 9

PHOTOS

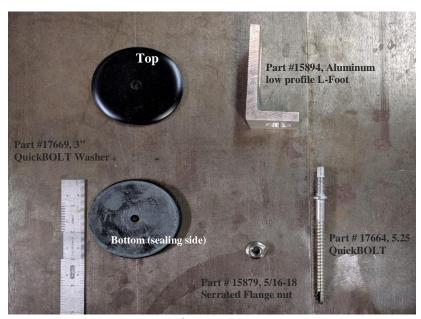


Photo No. 1
Contents of the kit tested (only includes one washer)



Photo No. 2
The specimen during ASTM E331 testing.



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Photo No. 3
ASTM E2140 testing



Photo No. 4
The water level was maintained at 6" for 7 days



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SECTION 10

INSTALLATION INSTRUCTIONS

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LOW PROFILE QUICKBOLT TO INSTALLATION INSTRUCTIONS











RECOMMENDED MATERIALS

- Rafter locater
- Chalk or crayon
- 3/16" Drill Bit
- Roofing Manufacturer's approved sealant

INSTALLATION INSTRUCTIONS

- 1. Locate and mark the rafters.
- 2. Predrill the hole with the 3/16" Drill Bit.
- 3. Fill the predrilled hole with sealant.
 - *We also recommend creating a circle of sealant on the back of the washer.
- 4. Place the EPDM Washer & drive the Bolt until the Washer compresses to the roof.
- 5. Place the L-Foot & Nut.
- 6. Tighten the Nut until the L-Foot is secure.

WHERE IS MY FLASHING?

The Stainless Steel backed EPDM Washer is fully Code-Compliant and does not require additional Sheet Metal Flashing. The collar on the QuickBOLT™ compresses the washer down onto the roof, forming a 100% leak-proof seal.





File E493748 Project 4787961007

August 17, 2017

REPORT

on

COMPONENT - Mounting Systems, Mounting Devices, Clamping Devices and Ground Lugs for Use with Photovoltaic Modules and Panels

Solar Roof Hook Livermore, CA

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DESCRIPTION

PRODUCT COVERED:

USR - Component, Roof Mounting Hook Units, Models 15796 15891 15893 15987

16000 16988 16990 16991 16993 17508 17509 17510 17511 17512 17513 17514 17515 17516 17517 17518 17519 17520 17521 17522 17523 17524 17525 17526 17527 17536 17537 17538 17539 17540 17541 17542 17543 17544 17545 17546 17547 17548 17549 17550 17551 17552 17553 17554 17555 17556 17558 17559 17560 17568 17569 17570 17571 17572 17573 17574 17575 17576 17576 17577 17578 17579 17850 17585 17586 17587 17588 17589 17592 17600 17601 17601 17606 17607 17608 17609 17610 17611 17612 17613 17614 17615 17616 17617 17618 17620 17621 17622 17623 17624 17625 17626 17627 17628 17649 17630 17631 17632 17633 17636 17637 17638 17639 17642 17643 17646 17647 17648 17649 17650 17651 17659 17664 17667 17669 17670 17671 17672 17673 17678 17678 17679 17680 17681 17686 17687 17688 17699 17600 17601 17701 17702 17703 17704 17705 17706 17707 17708 17709 17710 17711 17759 15891-10 15891BLK-10 15987A 15987B

Ratings: Overcurrent Protection Rating - 25 Amps

GENERAL:

USR - Indicates products were investigated in accordance with the requirements in UL2703, Mounting systems, mounting devices, lamping/retention devices, and ground lugs for use with flat-plate photovoltaic modules and panels, 1st Edition, dated January 28, 2015.

The above Roof Metal Hooks units are mainly intended to be used for residential roofs, except models 17646, 17648, and 17650 are intended for metal roofs which can be found in both commercial and residential roofs. These units are intended to be installed to the roof rafters under the shingles / tiles. SOLAR ROOF HOOK is mainly providing these roof mounting units and the installation to the roof is being done by different company.

TECHNICAL CONSIDERATIONS (NOT FOR FIELD REPRESENTATIVE'S USE):

Conditions of Acceptability - In order to be judged acceptable as a component of electrical equipment, the following conditions should be met:

- 1. These devices have been evaluated for bonding up to a maximum overcurrent protection level of 25 Amps.
- 2. Acceptability to be determined with specific Listed Mounting System under Listing evaluation.
- 3. Only the Bonding Path Resistance Test, Temperature Cycling Test, Humidity Test, and Bonding Conductor Test were done on units with two piece construction.

Marking - Manufacturer's name or trademark, part number, and the UL Recognized Component Mark will be printed onto each unit.

The instruction manual shall provide the following information:

1. Torque values associated with each of the two-piece connection points are indicated below. The remaining units are single piece.

Component/Connection	Torque Value (ft- lb)	Bolts Types
17516,17517,17518,17519	20	M10
17524,17525,17526,17527	20	M10
17585,17586,17587,17588,17589,17618	15	M8
17520,17521,17522,17523	20	M10
17568,17569,17570,17571,17572,17573	15	М8
17552,17553,17554,17555,17614,17615	15	M8
17548,17549,17550,17551,17612,17613,	15	M8
17578,17579,17600,17601,17616,17617	15	M8
17574,17575,17576,17577	18	M8
17646,17647	6	5/16-18
17650,17651	6	5/16-18
17700,17701,17702,17703,17704,17705	15	M8

Models with their descriptions and materials types as indicated in table below:

Models	Description	Material Type
17544	F-Tile 180-H-38MM-Hook 20/CS	304 stainless steel
17545	F-Tile 180-H-38MM Hook 1/PK	304 stainless steel
17610	F-Tile 180-38MM 5/16-Kit 20H-40S/Kit	304 stainless steel
17611	F-Tile 180-38MM 5/16-Kit 1H-2S/Kit	304 stainless steel
17546	F-Tile 180-38MM 1/4Kit 20H-40S/Kit	304 stainless steel
17547	F-Tile 180-38MM 1/4Kit 1H-2S/Kit	304 stainless steel
17540	F-Tile 90-H-38MM Hook 20/CS	304 stainless steel
17541	F-Tile 90-H-38MM-Hook 1/PK	304 stainless steel
17542	F-Tile 90-H-38MM 1/4Kit 20H-40S/Kit	304 stainless steel
17543	F-Tile 90-H-38MM-1/4Kit 1H-2S/Kit	304 stainless steel
17608	F-Tile 90-H-38MM 5/16-Kit 20H-40S/Kit	304 stainless steel
17609	F-Tile 90-H-38MM 5/16-Kit 1H-2S/Kit	304 stainless steel
17508	S-Tile 90-S-38MM-Hook 20/CS	304 stainless steel
17509	S-Tile 90-S-38MM-Hook 1/PK	304 stainless steel
17510	S-Tile 90-S-38MM-1/4Kit 20H-40S/Kit	304 stainless steel
17511	S-Tile 90-S-38MM-1/4Kit 1H-2S/Kit	304 stainless steel
17516	S-Tile ADJST 180-Hook 10/CS	305 stainless steel
17517	S-Tile ADJST 180-Hook 1/PK	305 stainless steel
17518	S-Tile ADJST 180-1/4Kit 10H-20S/Kit	305 stainless steel
17519	S-Tile ADJST 180-1/4Kit 1H-2S/Kit	305 stainless steel
17524	S-Tile ADJB-S-180-HooK-97MM 10/CS	305 stainless steel
17525	S-Tile ADJB-S-180-Hook-97MM 1/PK	305 stainless steel
17526	S-Tile ADJS-180-97MM 1/4Kit 10H-20S/Kit	305 stainless steel
17527	S-Tile ADJS-180-97MM 1/4Kit 1H-2S/Kit	305 stainless steel

Models	Description	Material Type
17536	SC-Steel 180 Short Roof Hook 20/CS	304 stainless steel
17537	SC-Steel 180 Short Roof Hook 1/PK	304 stainless steel
17538	SC-Steel 180 Short 1/4Kit 20H-40S/Kit	304 stainless steel
17539	SC-Steel 180 Short 1/4Kit 1H-2S/Kit	304 stainless steel
17606	SC-Steel 180 Short 5/16-Kit 20H-40S/Kit	304 stainless steel
17607	SC-Steel 180 Short 5/16-Kit 1H-2S/Kit	304 stainless steel
17620	SC-Steel 90-H-99 Batten Hook 20/CS	304 stainless steel
17621	SC-Steel 90-H-99 Batten Hook 1/PK	304 stainless steel
17622	SC-Steel 90-99mm Batten 1/4Kit 20H-40S/Kit	304 stainless steel
17623	SC-Steel 90-99mm Batten 1/4Kit 1H-2S/Kit	304 stainless steel
17624	SC-Steel 90-99mm Batten 5/16Kit 20H-40S/Kit	304 stainless steel
17625	SC-Steel 90-99mm Batten 5/16Kit 1H-2S/Kit	304 stainless steel
17585	All Tile ADJS-90-38MM Hook 10/CS	305 stainless steel
17586	All Tile ADJS 90-38MM Hook 1/PK	305 stainless steel
17587	All Tile ADJS 90-38MM 5/16-Kit 10H-20S/Kit	305 stainless steel
17588	All Tile ADJS 90-38MM 5/16Kit 1H-2S/Kit	305 stainless steel
17589	All Tile ADJS-90-38MM 1/4Kit 10H-20S/Kit	305 stainless steel
17618	All Tile ADJS 90-38MM-1/4Kit-1H-2S/Kit	305 stainless steel
17520	S-Tile ADJB-S-90-Hook 67-90mm 10/CS	305 stainless steel
17521	S-Tile ADJB-S-90-Hook 67-90mm 1/PK	305 stainless steel
17522	S-Tile ADJB-S-90 1/4Kit 10H-20S/Kit	305 stainless steel
17523	S-Tile ADJB-S-90-1/4Kit 1H-2S/Kit	305 stainless steel
17568	S-Tile ADJS-90-42MM-Hook 10/CS	305 stainless steel
17569	S-Tile ADJS-90-42MM Hook 1/PK	305 stainless steel
17570	S-Tile ADJS-90-42MM 1/4Kit 10H-20S/KIT	305 stainless steel
17571	S-Tile ADJS 90-42MM 1/4Kit 1H-2S/KIT	305 stainless steel
17572	S-Tile ADJS 90-42MM 5/16-Kit 10K-20S/Kit	305 stainless steel
17573	S-Tile ADJS 90-42MM 5/16-Kit 1H-2S/Kit	305 stainless steel

S-Tile ADJ 8" Base 42~50MM 10/CS

S-Tile ADJ 8" Base 42~50MM 1/PK

S-Tile ADJB 8" 42~50MM 5/16-Kit 10H-20S/Kit

S-Tile ADJB 8" 42~50MM 5/16-Kit 1H-2S/Kit

17574

17575

17576

17577

305 stainless steel

305 stainless steel

305 stainless steel

Models	Description	Material Type
17592	U-Foot 10mm Asphalt Mounting Kit 20/CS	Aluminum
15987	Aluminum Flashing With L-Foot + Screws 20/CS	Aluminum
15987A	Aluminum Flashing For L-Foot 40/CS	Aluminum
15987B	L-Foot For Aluminum Flashing 80/CS	Aluminum
15893	Wide Based Flashing	Aluminum
17632	F-Tile 90-H-7MM Thk-38MM Ht-Hook 20/CS	305 stainless steel
17633	F-Tile 90-H-7MM Thk-38MM Ht-Hook 1/PK	305 stainless steel
17636	F-Tile 90-H-7MM Thk-38MM Ht-5/16-Kit 20H-40S/Kit	305 stainless steel
17637	F-Tile 180-H-7MM Thk-38MM Ht-5/16-Kit 1H-2S/Kit	305 stainless steel
17638	F-Tile 180-H-7MM Thk-38MM Ht-Hook 20/CS	305 stainless steel
17639	F-Tile 180-H-7MM Thk-38MM Ht-Hook 1/PK	305 stainless steel
17642	F-Tile 180-H-7MM Thk-38MM Ht-5/16-Kit 20H-40S/Kit	305 stainless steel
17643	F-Tile 180-H-7MM Thk-38MM Ht-5/16-Kit 1H- 2S/Kit	305 stainless steel
17626	SC-Steel 90-H-No Batten Hook 20/CS	304 stainless steel
17627	SC-Steel 90-H-No Batten Hook 1/PK	304 stainless steel
17628	SC-Steel 90-No Batten 1/4Kit 20H-40S/Kit	304 stainless steel
17629	SC-Steel 90-No Batten 1/4Kit 1H-2S/Kit	304 stainless steel
17630	SC-Steel 90-No Batten 5/16Kit 20H-40S/Kit	304 stainless steel
17631	SC-Steel 90-No Batten 5/16Kit 1H-2S/Kit	304 stainless steel
15891BLK- 10	Offset L-foot	Aluminum
17646	Metal Loc 180 SolarGripz 48/CS	Aluminum
17647	Metal Loc 180 SolarGripz 1/PK	Aluminum
17648	Metal Trapezoid 180 SolarGripz 44/CS	Aluminum
17649	Metal Trapezoid 180 SolarGripz 1/PK	Aluminum

Γ	1			
Models	Description		Material	Туре
17650	Splitseam 45mm 180 SolarGripz 54/CS		minum 	
17651	Splitseam 45mm 180 SolarGripz 1/PK	ALuı	minum	
17670	5/16-18 x 7 QuickBOLT		stainless	
17671	5/16-18 x 7 QuickBOLT Kit - Bolt & Washer		stainless	
17672	5/16-18 x 7 QuickBOLT Kit - Bolt, Washer & 15891-10 Plain	304	stainless	steel
17673	5/16-18 x 7 QuickBOLT Kit - Bolt, Washer & 15891blk-10 Black	304	stainless	steel
		201		
17678	5/16-18 x 8 QuickBOLT		stainless	
17679	5/16-18 x 8 QuickBOLT Kit - Bolt & Washer		stainless	
17680	5/16-18 x 8 QuickBOLT Kit - Bolt, Washer & 15891-10 Plain	304	stainless	steel
17681	5/16-18 x 8 QuickBOLT Kit - Bolt, Washer & 15891blk-10 Black	304	stainless	steel
17686	5/16-18 x 9 QuickBOLT		stainless	
17687	5/16-18 x 9 QuickBOLT Kit - Bolt & Washer		stainless	
17688	5/16-18 x 9 QuickBOLT Kit - Bolt, Washer & 15891-10 Plain	304	stainless	steel
17689	5/16-18 x 9 QuickBOLT Kit - Bolt, Washer & 15891blk-10 Black	304	stainless	steel
17664	5/16-18 x 5-1/4" QuickBOLT		stainless	
17667	5/16-18 x 5-1/4" QuickBOLT Pow Profile Kit - Bolt, Washer and Pt# 15894 L-Foot	304	stainless	steel
17007	RIC BOIL, Washer and ILM 13034 I FOOL			
17669	3" QuickBOLT Washer 304 SS BLK 400/CS	304	stainless	steel
17659	4" QuickBOLT Washer 304 SS BLK	304	Stainless	Steel
15891-10	Offset L-Foot	Aluı	minum	
15891	Offset L-foot	Aluı	minum	
17556	14X3 HWH QS T17 302 S/S - 20/PK	302	stainless	steel
17558	14x3 HWH QS T17 302 S/S - 40/PK	302	stainless	steel
17559	14X4 HWH QS T17 302 S/S - 20/PK	302	stainless	steel
17560	14 X 3.00 HWH QS T17 302 SS 1M/CS	302	stainless	steel
17759	14 x 3.00 HWH Q\$ T17 Dacro W/EPDM Washer - 40/Ea	302	stainless	steel

Models	Description	Material Type
16988	5/16 X 3 HWH QS T17 302 S/S - 20/PK	302 stainless steel
16990	5/16 X 3 HWH QS T17 302 S/S - 40/PK	302 stainless steel
16993	5/16 X 4 HWH QS T17 302 S/S - 20/PK	302 stainless steel
16991	5/16 X 4 HWH QS T17 302 S/S - 40/PK	302 stainless steel
10331	3/10 X 1 HWH QO 11/ 302 3/0 40/11	
17700	All Tile ADJS 90-144.5MM Arm Hook - 10/CS	304 Stainless Steel
17701	All Tile ADJS 90-144.5MM Arm Hook - 1/PK	304 Stainless Steel
17702	All Tile ADJS 90-144.5MM Arm Hook - 5/16 kit 10H-20S	304 Stainless Steel
17703	All Tile ADJS 90-144.5MM Arm Hook - 5/16 kit 1H-2S	304 Stainless Steel
17704	All Tile ADJS 90-144.5MM Arm Hook - #14 kit 10H-20S	304 Stainless Steel
17705	All Tile ADJS 90-144.5MM Arm Hook - #14 kit 1H-2S	304 Stainless Steel
		304 Stainless Steel
17706	S-Tile 90-S-38MM WB Hook 20/CS	
17707	S-Tile 90-S-38MM WB Hook 1/PK	304 Stainless Steel
17708	S-Tile 90-S-38MM WB Hook - #14 kit 20H-40S	304 Stainless Steel
17709	S-Tile 90-S-38MM WB Hook - #14 kit 1H-2S	304 Stainless Steel
17710	S-Tile 90-S-38MM WB Hook - 5/16 kit 20H- 40S	304 Stainless Steel
17711	S-Tile 90-S-38MM WB Hook - 5/16 kit 1H-2S	304 Stainless Steel
16000	Galv Black Flashing - 20/Ea	Galvanized Steel
17580	Black Split Top U-Foot - 20/Ea	Aluminum
15796	L-Foot Split Top Flat Bottom Black - 20/Ea	Aluminum

*

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CS - CASE, PK - PACKAGE, H - Hook, S/S - 300 series Stainless Steel, HWH - Hex Washer Head,

The following table indicates models with two parts with their bolt types and sizes.

Models	Bolts - *
17516,17517,17518,17519	M10
17524,17525,17526,17527	M10
17585,17586,17587,17588,17589,17618	M8
17520,17521,17522,17523	M10
17568,17569,17570,17571,17572,17573	M8
17552,17553,17554,17555,17614,17615	M8
17548,17549,17550,17551,17612,17613,	M8
17578,17579,17600,17601,17616,17617	M8
17574,17575,17576,17577	M8
17700,17701,17702,17703,17704,17705	M8
17646,17647	5/16-18
17650,17651	5/16-18

 $[\]star$ - Bolts are same material as the units.

 ${\tt FIGURES:}$ The table below describes the Figures for units and their dimensions:

Table A

Figure	Models	Description (mm)
1	17544,17545,17610,17611,17546, 17547	Overall 285 x 30 x 5 mm thick
2	17540,17541,17542,17543,17608, 17609	Overall 286 x 30 x 5 mm thick
3	17508,17509,17510,17511	Overall 180 x 151 x 165 x 5 mm thick
4	17516,17517,17518,17519	Overall 180 x 145 x 129.5 x 5 mm thick
5	17524,17525,17526,17527	Overall 203 x 161 x 148 x 5 mm thick
6	17536,17537,17538,17539,17606, 17607	Overall 263 x 218.5 x 30 x 5 mm thick
7	17620,17621,17622,17623,17624, 17625	Overall 203 x 151 x 214, 5 mm thick
8	17585,17586,17587,17588,17589, 17618	Overall 140 x 176.5 x 198.5, 6 mm thick
9	17520,17521,17522,17523	Overall 203 x 151 x 214, 5 mm thick
10	17568,17569,17570,17571,17572, 17573	Overall 140 x 179.5 x 173.5, 6 mm thick
11	17552,17553,17554,17555,17614, 17615	Overall 268.3 x 41.3 x 30, 5 mm thick
12	17548,17549,17550,17551,17612, 17613,	Overall 268.3 x 136 x 30, 5 mm thick
13	17512,17513,17514,17515	Overall 180 x 145 x 119 x 5 mm thick
14	17578,17579,17600,17601,17616, 17617	Overall 140 x 179.5 x 102, 6 mm thick
15	17574,17575,17576,17577	Overall 203 x 180.5 x 160.5, 6 mm thick
16	17592 - U-Foot	Overall 80 x 88 x 30.4, 6.4 mm thick
17	15987,15987A,15987B	Overall 305 x 305 x 70, 11 mm thick
18	15893	Overall 228.6 x 355.6 x 20
19	17632,17633,17636,17637	Overall 221.3 x 144.3 x 30, 7 mm thick
20	17638,17639,17642,17643	Overall 221.3 x 130.3 x 30, 7 mm thick
21	17626,17627,17628,17629,17630, 17631	Overall 256.2 x 120 x 30, 5 mm thick
22	15891BLK-10,15891-10,15891	Overall 85 x 40 x 50, 8 mm thick
23	17646,17647	Overall 61 x 55 x 50, 5 mm thick
24	17648,17649	Overall 82 x 54.8 x 50, 4 mm thick
25	17650,17651	Overall 77 x 55 x 50, 5 mm thick
26	17670,17671,17672,17673	Overall 181.4 long
27	17678,17679,17680,17681	Overall 206.74 long
28	17686,17687,17688,17689	Overall 232.2 long
29	17664,17667	Overall 124.5 long
30	17669	Overall 76.2 OD
31	17556,17558,17559,17560	Overall 101 x 16.4
32	16988,16990, 16993,16991	Overall 101.6 x 17.2

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Figures - Table A Continued

Figure	Models	Description (mm)
33	17700, 17701, 17702, 17703, 17704, 17705	Overall 140 x 170.5-178.5 x 201.9 x 6 mm thick
34	17706, 17707, 17708, 17709, 17710, 17711	Overall 225 x 156 x 165 x 5 mm thick
35	15796	Overall 85 x 40 x 40 x 7.8 mm thick
36	17580	Overall 130 x 77 x 38 x 8 mm thick
37	16000	Overall 229 x 305 x 30 x 0.5 mm thick
38	17659	101.6 mm OD

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ILLUSTRATIONS:

The table below indicates the instruction manual for the specific models:

Table B

ILL.	Models
1	17544,17545,17610,17611,17546, 17547
2	17540,17541,17542,17543,17608,17609
3	17508,17509,17510,17511
4	17516,17517,17518,17519
5	17524,17525,17526,17527
6	17536,17537,17538,17539,17606,17607
7	17620,17621,17622,17623,17624,17625
8	17585,17586,17587,17588,17589,17618
9	17520,17521,17522,17523
10	17568,17569,17570,17571,17572,17573
11	17552,17553,17554,17555,17614,17615
12	17548,17549,17550,17551,17612,17613
13	17512,17513,17514,17515
14	17578,17579,17600,17601,17616,17617
15	17574,17575,17576,17577
16	17592 - U-Foot
17	15987,15987A,15987B
18	15893
19	17632,17633,17636,17637
20	17638,17639,17642,17643
21	17626,17627,17628,17629,17630,17631
22	17646,17647
23	17648,17649
24	17650,17651
25	17670,17671,17672,17673
26	17678,17679,17680,17681
27	17686,17687,17688,17689
28	17664,17667



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TEST REPORT FOR QUICKBOLT – A DIVISION OF QUICKSCREWS INTERNATIONAL CORPORATION

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Date: 11/30/17

SECTION 11

REVISION LOG

REVISION #	DATE	PAGES	REVISION
0	11/08/17	N/A	Original Report Issue.
1	11/30/17	8-22	Added correct installation drawings.
2	03/12/19	All	Correction of Customer Name.
3	10/14/19	2	Corrected EPDM

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