



# CERTIFICATION REPORT

Moncton ■ Montréal ■ Toronto ■ Winnipeg ■ Edmonton ■ Vancouver ■ Brussels ■ Taiwan ■ Hong Kong

REPORT NO: LR 7189A-399

**Edition 1:** July 14, 1993; Application No LR 7189A-399 - Rexdale  
Issued by N. Sajatovich

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## SUBJECT

CLASS 4414 04 - GROUNDING AND BONDING DEVICES

Grounding and bonding connectors, copper taps, Part No 80408-2 and 80408-4.

**REPLACES**

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**APPLICABLE REQUIREMENTS**

CSA Std C22.2 No. 41-M1987 - Grounding and Bonding Equipment

**MARKINGS**

On each connector body: (1)(2)(3)(7)  
On or in the smallest unit package: (4)(5)(6)

- (1) Manufacturer's name or trademark.
- (2) CSA Mark.
- (3) Wire sizes.
- (4) Wire combinations.
- (5) Electrode size.
- (6) Part number.
- (7) The wording, "DIRECT BURIAL", "DB" or equivalent.

**ALTERATIONS**

As indicated in "MARKINGS" above.

**FACTORY TESTS**

Not applicable.

**DESCRIPTION**

Grounding and bonding connectors, "SHEAR-LOK" copper taps, Part No 80408-2 and 80408-4, for direct burial applications, copper conductors only.

The wire combinations for each Part No are as follows:

<u>Part No</u>	<u>Large Wire</u>	<u>Small Wire</u>
80408-2	5/8 Galv rod (.625)	6 SOL, STR
80408-4	3/4 Galv rod (.750)	6 SOL, STR

1. **Body:** Copper alloy, CDA 954 with factory applied anti-oxidation compound, C-shaped, 1.73 in wide and 2.40 in long. Refer to Figs 1 and 2.
2. **Wedge:** Copper alloy, CDA 954 and similar in shape to presently Certified C-Lok wedge. Refer to Figs 1 and 2 for dimensions and shape.
3. **Bolt:** Silicone bronze, CDA 651. The bolt head is designated to shear at a pre-determined torque. Hex bolt is approx 2.87 in long, 5/16-18 and supplied with a stainless steel washer.

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TESTS

The following satisfactory tests were performed in compliance with CSA Standard C22.2 No 41-M1987:

<u>Tests Performed</u>	<u>Samples</u>			
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>
Torque	*	*	*	*
Wire Size	6	6	6	6
Wire Stranding	SOL	SOL	7	7
Rod Size (in)	5/8	5/8	5/8	5/8

Secureness Test: Cl 6.2

Bushing Dia (mm)	12.7	12.7	12.7	12.7
Height (mm)	298	298	298	298
Mass (kg)	8.2	8.2	8.2	8.2
Results	OK	OK	OK	OK

Pullout Test: Cl 6.3

Force Applied N.	445	445	445	445
Results	OK	OK	OK	OK

Short Time Test Current: Cl 6.4

Test Current 1530A				
Time 6 Sec.	-	-	OK	OK
Continuity After				
S.T.T.C	-	-	OK	OK
mV Drop After S.T.T.C.	-	-	5.5	6.4

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Samples

<u>Tests Performed</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>
Torque	*	*	*	*
Wire Size	6	6	6	6
Wire Stranding	SOL	SOL	7	7
Rod Size (In)	3/4	3/4	3/4	3/4

Secureness Test: Cl 6.2

Bushing Dia (mm)	12.7	12.7	12.7	12.7
Height (mm)	298	298	298	298
Mass (kg)	8.2	8.2	8.2	8.2
Results	OK	OK	OK	OK

Pullout Test: Cl 6.3

Force Applied N.	445	445	445	445
Results	OK	OK	OK	OK

Short Time Test Current: Cl 6.4

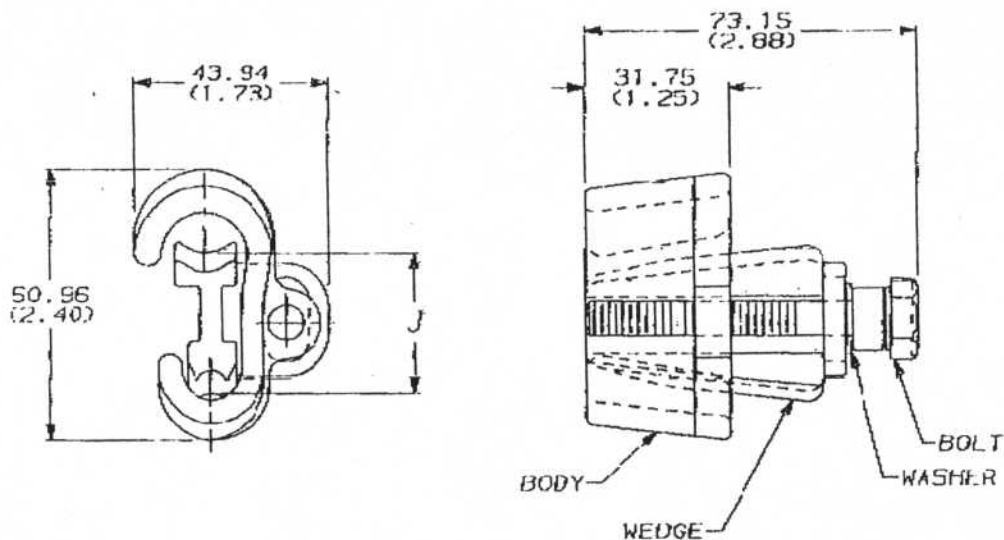
Test Current 1530A				
Time 6 Sec.	-	-	OK	OK
Continuity After				
S.T.T.C	-	-	OK	OK
mV Drop After S.T.T.C.	-	-	5.1	4.2

Remarks: \* Sample employs a shear-off bolt for assembly.

The installation instruction sheets are attached to the Engineering Report only.

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LOC	DIST	REVISIONS						
BG	1	P	F	ZONE	LYR	DESCRIPTION	DATE	APPD
				A		INITIAL RELEASE		



'J' DIMENSION	PART NO.
33.02 (1.30)	80408-2
30.48 (1.20)	80408-4

NOTES:

- MATERIAL:  
 BODY & WEDGE - COPPER ALLOY, 80% MIN COPPER CONTENT  
 BOLT - SILICON BRONZE  
 WASHER - STAINLESS STEEL
- ANTY-OXIDATION INHIBITOR APPLIED TO GROOVES OF BODY AND WEDGE.
- DIMENSIONS ARE FOR REFERENCE ONLY.

**METRIC**

DO NOT SCALE PRINT. UNLESS SPECIFIED DIMENSIONS IN ( ) ARE IN INCHES. TOLERANCES OR: 2 PLC DEC: - 3 PLC DEC: - ANGLES: -		OR H. SURFACE FINISH		PART NO	
NOTE 1		AMP		AMP OF CANADA Ltd. Markham, Ont.	
FINISH		PRODUCT SPEC		SHEAR-LOK COPPER TAP	
WEIGHT		S.ZF	CAGE CODE	DRAWING NO	
		B	09482	SK1405	
		SCALE NTS		SHEET 1 OF 1	

AMP 1720-15 REV 11 93  
 17 JUN 1993 13:56:46 DAVE <CAD>DEPTORNG>U. SKETCHES

S:\SK1405\_1.A1 Plotted by DAVE on 17 JUN 1993 at 14:02:11 from <CAD>DEPTORNG>U. SKETCHES

**LR7189-A399 Fig. 1**

08/17/93 14:57 2418 470 419 AMP OF CANADA 002/002

AMP INC

#80408-4

7189-A399

Fig. 2

