



# Clip Wire Rope 1 1/2 in.

## Equipment Specification

Document No.: 4752.274

Item No.: 002-13892

Originating Dept: Transmission Eng.

	Document Title: <b>Clip Wire Rope 1 1/2 in.</b>		
	Document Type: <b>Equipment Specification</b>	Document No.: <b>4752.274</b>	
Department: Transmission Engineering	Version: 01	Issue Date: 5/20/2022	Effective Date: 5/20/2022

<p><b>Author</b> Emmanuel E Rivera Cruz Designer, Transmission &amp; Substation Engineering</p> <p><b>Reviewer 1</b> Rene Maldonado Supervisor, Line Engineering Standards</p> <p><b>Reviewer 2</b> Oscar Venegas Lead Engineer, Trans</p> <p><b>Approver</b> Walter Carrasquillo Alberty Manager, T&amp;S Standards and Materials</p>	Signature and Date  <u>Emmanuel E Rivera Cruz (Jun 2, 2022 16:24 EDT)</u>
	Signature and Date  <u>Rene Maldonado (Jun 3, 2022 08:24 EDT)</u>
	Signature and Date  <u>Oscar E Venegas (Jun 6, 2022 11:29 EDT)</u>
	Signature and Date  <u>Walter Carrasquillo (Jun 6, 2022 16:15 EDT)</u>

## Management Approval

<p>Heriberto González Section Manager, Standards</p> <p>Darrel Wilvers Director, Asset Management</p>	Signature and Date  <u>Heriberto Gonzalez (Jun 6, 2022 18:06 EDT)</u>
	Signature and Date <p style="text-align: center;">N/A</p>

## Version History

Version	Date	Revision Comments	Author	Reviewers	Approver
00	Dec 28, 2021		Rene Maldonado	Heriberto Gonzalez	Walter Carrasquillo
01	May 20, 2022	General revision for final approval	Emmanuel E. Rivera	Rene Maldonado Oscar Venegas	Walter Carrasquillo



**1. General**

- 1.1. This is a general specification that covers the minimum requirements for a Clip Wire Rope used in the transmission system in Puerto Rico.
- 1.2. Further information will be provided by LUMA Energy at the time of order placement and will provide information on site conditions, quantity, and other requirements.
- 1.3. This document includes the general electrical and mechanical characteristics of the material.

**2. Specific Name:**

- 2.1. Wire Clip Rope 1 ½ in.

**3. Basic Use**

- 3.1. For affix the 19#5 guy wire to the 1 ½ in. anchor rod on the transmission anchor system for transmission structures.

**4. Special Requirements**

- 4.1. Samples shall be furnished if requested by LUMA.
- 4.2. LUMA may require One (1) unit properly labeled for testing and analysis.
- 4.3. Descriptive and technical literature shall be supplied if requested by LUMA.

**5. Marking and Packaging**

- 5.1. Containers/pallets or package shall be marked outside with LUMA'S purchase order number and code number. Vendor shall prepare material and equipment for shipment in such manner as to facilitate handling and protection for damage. All material should be packaged and marked in such a way that the receiving warehouse can readily identify and send in one (1) complete unit to a field location without opening crates or boxes to sort items and / or parts.

**6. Equal or approved equal to:**

- 6.1. Crosby Clips. Catalog No. G-450 1010319 Red-U-Bolt, Clip.

**7. Number of Pieces per package**

- 7.1. Standard package quantity: 10 or as requested by LUMA.

**8. Acceptance Criteria**

- 8.1. Latest applicable codes, standards, and other regulations: ANSI/ASTM A153.

**9. Description**

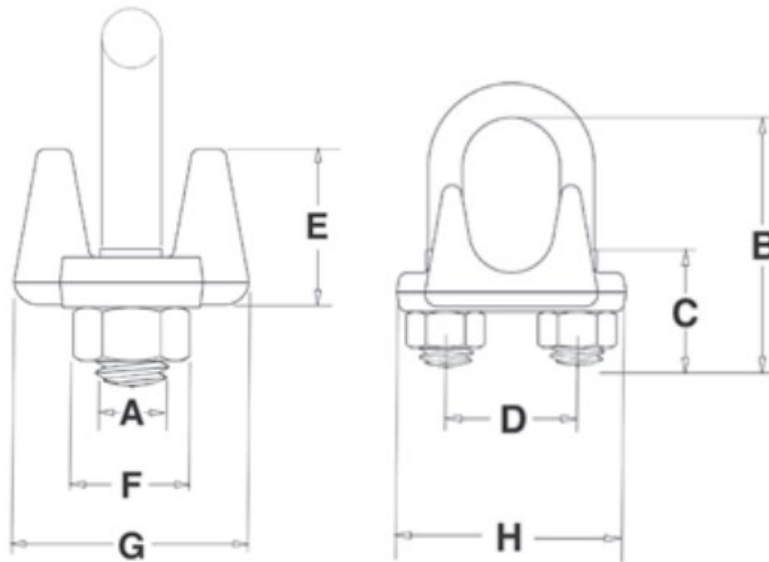
- 9.1. Entire Clip is Galvanized to resist corrosive and rusting action.

- 9.2. Meets or exceeds all requirements of ASME B30.26 including identification, ductility, design factor, proof load and temperature requirements. Importantly, these wire rope clips meet other critical performance requirements including fatigue life, impact properties and material traceability, not addressed by ASME B30.26.
- 9.3. U-bolts and Nuts hardware shall be electro-plated.
- 9.4. All Clips are individually bagged or tagged with proper application instructions and warning information.
- 9.5. Metric conversion as per latest ASTM.

**10. Inspection**

- 10.1. The acceptance of any material or equipment shall in no way relieve the vendor from his responsibility to meet all the requirements of this specification, and it shall not prevent subsequent rejection if such material is found to be defective later.

**11. Typical Drawing:**



A Min.	B Min	C Min	D Min.	E Min.	F Min.	G Min.	H Min.
0.88"	4.94"	2.38"	2.59"	2.44"	1.44"	3.41"	4.44"

– End of Specification –