

Guy Hooks



1. Scope

This standard covers the requirements for guy hooks.

This standard applies to the following Seattle City Light (SCL) stock numbers:

| <u>Stock No.</u> | <u>Description</u> |
|------------------|--------------------|
| 565195 | Down guy hook |
| 014381 | Span guy hook |

Guy hooks are also known as goat hooks, goathorns, T-hooks, or integral spur hooks.

2. Application

Guy hooks are used to attach down or span guys to wood poles.

The minimum strength values cited in Table 4 equate to ultimate strength values commonly cited by manufacturers.

Down guy hooks are not for use on flat surfaces or fiberglass structures. For fiberglass pole applications, see SCL 5651.28.

3. Industry Standards

Guy hooks shall meet the applicable requirements of the following industry standards:

ASTM A47 (2014); "Standard Specification for Ferritic Malleable Iron Castings"

ASTM A123 (2015); "Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products"

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ASTM A153/153M (2016); “Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware”

ASTM A536 (2014); “Standard Specification for Ductile Iron Casting”

IEEE C135.90 (2014); “Standard for Pole Line Hardware for Overhead Line Construction”

4. Requirements

Down and span guy hooks shall meet the minimum strength requirements of Table 4 and Figure 4.

Down and span guy hooks shall:

- Be rated to accommodate a 1/2-in minimum guy or span wire.
- Be aluminum or ductile iron and hot-dip galvanized.
- Be free of gouges, burrs, sharp edges, and sharp corners.

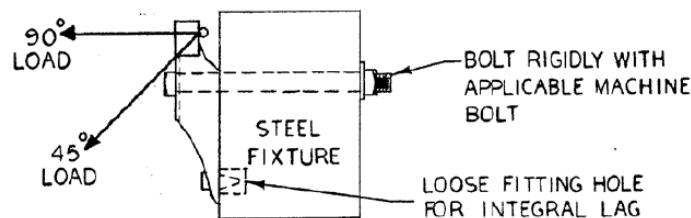
Mounting holes shall be a single hole. Slotted holes will not be accepted.

Mounting holes shall accommodate a 3/4-in bolt.

Table 4. Guy Hook Minimum Strength

| Angle (degrees) | Minimum Strength (lb) |
|-----------------|-----------------------|
| 45 or 90 | 18,350 |

Figure 4. Guy Test Set-Up



4.1 Down Guy Hooks

Down guy hooks shall:

- Have integral spurs, teeth, or both at the lower heel pad to resist movement.
- Accommodate pull-off angles from 30 to 90 degrees from horizontal.
- Conform to the dimensions and tolerances specified in IEEE C135.90 and shown in Figure 4.1 and Table 4.1.

Figure 4.1 Down Guy Hook Dimensions (in)

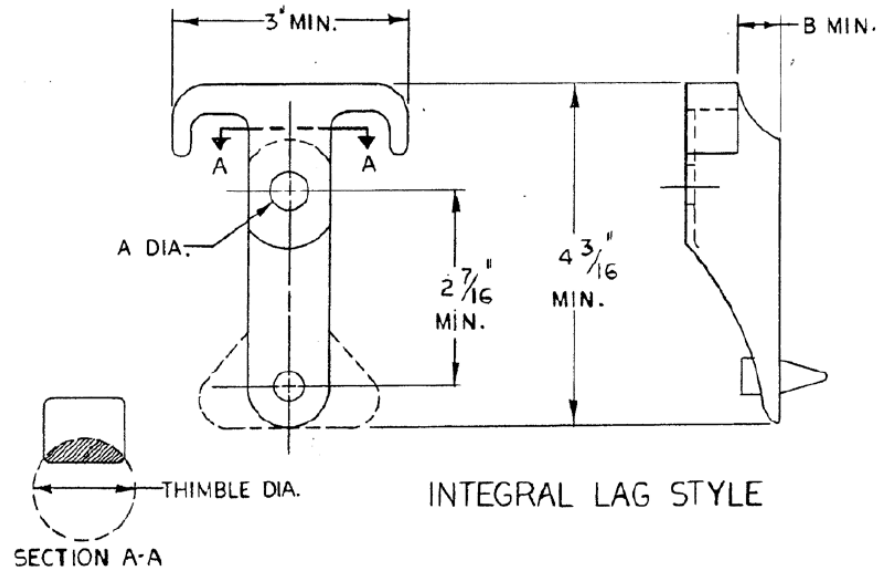


Table 4.1. Down Guy Hook Dimensions (in)

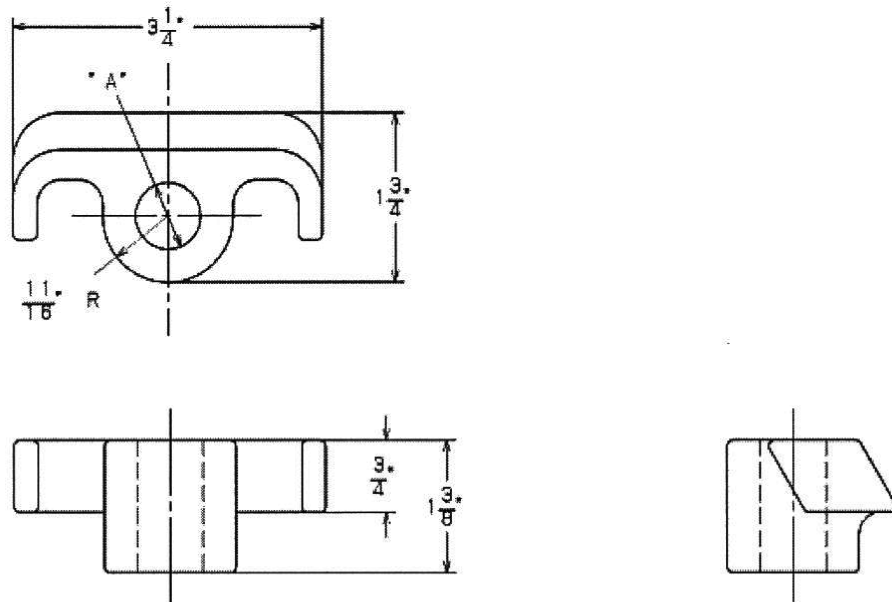
| Dimension | Size | Max | Min |
|---------------|-------|-------|-------|
| Strand | 1/2 | 1/2 | – |
| Thimble (dia) | 1-3/8 | 1-7/8 | 1-3/8 |
| A | 13/16 | 7/8 | 13/16 |
| B | – | – | 9/16 |

4.2 Span Guy Hooks

Span guy hooks shall:

- Accommodate pull-off angles from 0 to 30 degrees from horizontal.
- Conform to the dimensions and tolerances specified in IEEE C135.90 and shown in Figure 4.2.

Figure 4.2 Span Guy Hook Dimensions (in)



5. Marking

Marking for each guy hook shall include, but not be limited to, the following:

- Manufacturer identification
- Country of origin
- Part identification

6. Packaging

Guy hooks shall be packaged to prevent damage during shipping, handling, and inside storage.

Each standard package shall be legibly marked with the following information:

- Manufacturer identification
- Product description
- Seattle City Light stock number
- Quantity contained

Each shipping container shall be legibly marked with the following information:

- Manufacturer identification
- Product description
- Seattle City Light purchase order number

7. Issuance

Stock Unit: EA

8. Approved Manufacturers

| Stock No. | Description | Manufacturer | Catalog No. |
|------------------|--------------------|-----------------------|--------------------|
| 565195 | Down Guy Hook | Hubbell/Chance | GH6-ILS |
| | | Line Hardware, Inc. | HGA-75CS |
| | | MacLean Power Systems | P133AX |
| 014381 | Span Guy Hook | | |
| | | Hubbell/Chance | GH3 |
| | | MacLean Power Systems | SGA-6 |

9. Sources

Lu, Curtis; SCL Standards Engineer and subject matter expert for 5651.22

Neuansourinh, Ponet; SCL Standards Engineer and originator of 5651.22