

## Hardware, Miscellaneous



### 1. Scope

This standard covers the requirements for miscellaneous hardware, consisting of turnbuckles, running thread rod, coupling nuts, full thread studs, and slip-on lock nuts. This standard applies to the Seattle City Light (SCL) stock numbers cited in Section 4.

### 2. Application

Slip-on lock nuts are designed to be positioned on a threaded rod at any point, eliminating the need to thread from the end of the rod down. Slip-on lock nuts are twisted open by hand, inserted where desired, then hand twisted closed and tightened with a wrench.

Coupling nuts are for use to connect anchors and steel rods.

### 3. Industry Standards

Hardware shall meet the applicable requirements of the latest revision of the following industry standards:

**ASTM F1145-05**; Standard Specification for Turnbuckles, Swaged, Welded, Forged

**ASME B1.1**; "Unified Inch Screw Threads"

**ASME B30.26**; "Rigging Hardware"

**ASME B18.12**; Glossary of Terms for Mechanical Fasteners

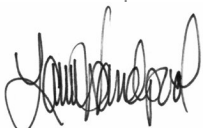
**ASTM A153/A153M**; "Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware"

**ASTM B98**; "Standard Specification for Copper-Silicon Alloy Rod, Bar and Shapes"

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## 4. Requirements

### 4.1 Turnbuckles

Figure 4.1. Turnbuckle



Table 4.1. Turnbuckles

|                        | Stock No. 787982 | Stock No. 787937 |
|------------------------|------------------|------------------|
| Type                   | H-H              | J-J              |
| Thread diameter (in)   | 1/2              | 3/4              |
| Take up (in)           | 6                | 6                |
| Safe working load (lb) | 1100             | 4000             |

Turnbuckles shall meet the applicable requirements of ASTM F1145 and ASME B30.26.

Turnbuckles shall be hot-dip galvanized according to the requirements of ASTM A153.

### 4.2 Running Thread Rods

Figure 4.2. Running Thread Rod



Table 4.2. Running Thread Rods

| Stock No. | Size, Nominal (in) |
|-----------|--------------------|
| 780998    | 3/8-16             |
| 780999    | 1/2-13             |
| 781000    | 5/8-11             |

Running thread rod shall be zinc plated.

Running thread rod shall be provided in 10-ft lengths.

### 4.3 Coupling Nuts

Coupling nuts shall be zinc plated.

**Figure 4.3. Coupling Nut**



**Table 4.3. Coupling Nuts**

| Stock No. | Size, Nominal (in) |
|-----------|--------------------|
| 780048    | 3/8                |
| 780049    | 1/2                |
| 780050    | 5/8                |

### 4.4 Full Thread Studs

Full thread studs shall be fabricated from silicon bronze meeting the requirements of ASTM B98.

Full thread stud ends shall have flat chamfered points each end.

**Figure 4.4a. Full Thread Stud, 2-3/8-in Length**



**Figure 4.4b. Full Thread Stud, 1-1/2-in Length**



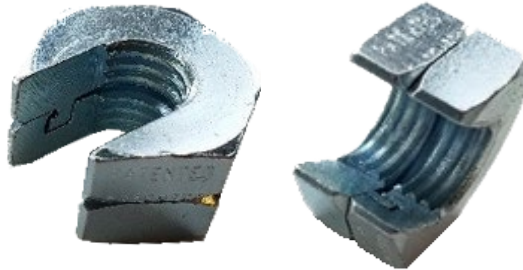
**Table 4.4. Full Thread Studs**

| Stock No. | Size, Nominal (in) |
|-----------|--------------------|
| 786600    | 3/8-16 x 2-3/8     |
| 012944    | 3/8-16 x 1-1/2     |

#### 4.5 Slip-On Lock Nuts

Slip-On lock nuts shall be zinc-plated.

**Figure 4.5. Slip-On Lock Nuts**



**Table 4.5. Slip-On Lock Nuts**

| Stock No. | Diameter (in) | Thread Size | Load Limit (lb) |
|-----------|---------------|-------------|-----------------|
| 014403    | 3/8           | 16          | 2000            |
| 014404    | 1/2           | 13          | 4000            |
| 014405    | 5/8           | 11          | 5000            |

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#### 5. Packaging

Product shall be packaged to prevent damage during shipping, handling, and storage.

Individual packages shall be legibly marked with:

- Manufacturer name
- Manufacturer catalog number
- Product description
- SCL stock number

Shipping containers shall be legibly marked with:

- SCL purchase order number

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#### 6. Issuance

Stock Unit: EA

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#### 7. Approved Manufacturers

SCL Material Control personnel may identify and approve manufacturers of all stock numbers listed in this standard.

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#### 8. Sources

**SCL Stock Catalog page 78-26**; March 25, 2011

**Federal Specification FF-T-791B**; Turnbuckle, May 2, 1967

**Shipek, John**; SCL Standards Supervisor and originator of 7801.42