ICC EVALUATION SERVICE

# ICC-ES Evaluation Report

**ESR-2281**

*Reissued December 2019*

*This report is subject to renewal December 2020.*

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**DIVISION: 05 00 00—METALS**
**Section: 05 40 00—Cold-Formed Metal Framing**
**Section: 05 41 00—Structural Metal Stud Framing**

**DIVISION: 09 00 00—FINISHES**
**Section: 09 22 16.13—Non-Structural Metal Stud Framing**

**REPORT HOLDER:**

**TELLING INDUSTRIES**

**EVALUATION SUBJECT:**

**METAL FRAMING**

## 1.0 EVALUATION SCOPE

**Compliance with the following codes:**

- 2018, 2015, 2012, and 2009 *International Building Code*® (IBC)
- 2018, 2015, 2012, and 2009 *International Residential Code*® (IRC)

**Property evaluated:**

Structural

## 2.0 USES

Members with a minimum G40 coating are used as nonstructural members as defined by the North American Standard for Cold-Formed Steel Framing – Nonstructural Members (AISI S220).

Members with a minimum G60 coating are used as structural members as defined by the North American Standard for Cold-Formed Steel Structural Framing (AISI S240) and the North American Standard for Cold-Formed Steel Framing - General Provisions (AISI S200), as applicable and may also be used as nonstructural members.

## 3.0 DESCRIPTION

### 3.1 General:

The metal framing members described in this report are factory-formed from coils of steel at the facilities noted in Table 8. See Tables 1, 2, 5 and 6, and Figure 1, for recognized profiles and section names. The C-sections (studs) are manufactured with and without web punch-outs. When provided, punch-outs have a width between $^3/_4$ inch (19 mm) and $1^1/_2$ inches (38 mm) but in no case greater than one-half the member web height (d/2); and a length of 4 inches (102 mm). See Figure 2 for an illustration of punch-outs. The punch-outs are located along the centerline of the webs of the studs with a minimum center-to-center spacing of 24 inches (610 mm). The minimum distance between the end of the stud and the near edge of the web punch-outs is 10 inches (254 mm). The values for studs in each of the tables of this report are for studs with punch-outs unless otherwise noted.

C-sections with 1.25-inch (32 mm) flanges may have indentations on the flanges. All other surfaces are flat, smooth surfaces. All surfaces of all other members are flat and smooth.

### 3.2 Materials:

Telling Industries metal framing members are cold-formed from steel coils conforming to ASTM A1003 ST33H or ASTM A1003 ST50H for members with a thickness of 33 mils or more, and ASTM A1003 NS33 for members with a thickness of less than 33 mils. The members have either a minimum G40 or G60 galvanized coating. The base-metal thickness is specified in Tables 1 through 6.

## 4.0 DESIGN AND INSTALLATION

### 4.1 Design:

The section properties indicated in Tables 3 through 6 have been determined in accordance with the North American Specification for Design of Cold-formed Steel Structural Members (AISI S100). The allowable moments, $M_a$, as indicated in Tables 3 through 6, are for use with Allowable Strength Design (ASD) and are for flexural members installed with the compression flange continuously braced. For other conditions of compression flange bracing, the allowable moment must be determined in accordance with AISI S100. The design of members must address web crippling, combined bending and web crippling, and combined bending and shear, as applicable, in accordance with the AISI S100.C-sections (studs) listed in Table 7 and channels (tracks) qualify for use with the prescriptive requirements of the IRC. For use of all other sections under the IRC, the cold-formed steel framing members must be limited to engineered structures, in accordance with IRC Section R301.1.3.

### 4.2 Installation:

The framing members must be installed in accordance with the code, the approved plans and this report. If there is a conflict between the plans submitted for approval and this report, this report governs. The approved plans must be made available at the jobsite at all times.

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## 5.0 CONDITIONS OF USE

The Telling Industries metal framing described in this report complies with, or is a suitable alternative to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

**5.1** The cold-formed steel members are installed in accordance with the code, the approved plans and this report.

**5.2** Minimum uncoated base-metal thickness of the cold-formed steel members as delivered to the jobsite are at least 95 percent of the design base-metal thickness noted in Tables 1, 2, 5 and 6.

**5.3** Complete plans and calculations verifying compliance with this report must be submitted to the code official for each project at the time of permit application. The calculations and drawings must be prepared and sealed by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed.

**5.4** The cold-formed steel members are manufactured under an approved quality control program by ICC-ES.

## 6.0 EVIDENCE SUBMITTED

Data in accordance with the ICC-ES Acceptance Criteria for Cold-formed Steel Framing Members (AC46), dated February 2019.

## 7.0 IDENTIFICATION

**7.1** At a spacing not exceeding 96 inches (2440 mm) on center, each cold-formed steel member is stamped with the Telling Industries name or initials (TI); the section name as described in Tables 1 through 6; the evaluation report number (ESR-2281); the minimum uncoated base-metal thickness in mils or decimal inches; in addition to the following:

- For nonstructural members, each member must have the minimum specified yield strength (if other than 33 ksi), and the designation “NS”.
- For structural members, each member must have the minimum specified yield strength; and the designation CP 60 for the G60 galvanized coating.

**7.2** The report holder’s contact information is the following:

**TELLING INDUSTRIES**
**4420 SHERWIN ROAD**
**WILLOUGHBY, OHIO 44094**
**(440) 974-3370**
**www.buildstrong.com**
**Sales.corp@tellingindustries.com**

**TABLE 1—C-SECTIONS (STUDS)[1]**

| SECTION | DEPTH[2] (in) | FLANGE (in) | LIP (in) | INSIDE CORNER RADII (in) | MILS | DESIGN THICK. (in) | MIN. BASE METAL THICK.[3] (in) |
|---|---|---|---|---|---|---|---|
| 162S125-18 | 1.625 | 1.25 | 0.1875 | 0.0843 | 18 | 0.0188 | 0.0179 |
| 162S125-27 | 1.625 | 1.25 | 0.1875 | 0.0796 | 27 | 0.0283 | 0.0269 |
| 162S125-30 | 1.625 | 1.25 | 0.1875 | 0.0781 | 30 | 0.0312 | 0.0296 |
| 162S125-33 | 1.625 | 1.25 | 0.1875 | 0.0764 | 33 | 0.0346 | 0.0329 |
| 250S125-18 | 2.5 | 1.25 | 0.1875 | 0.0843 | 18 | 0.0188 | 0.0179 |
| 250S125-27 | 2.5 | 1.25 | 0.1875 | 0.0796 | 27 | 0.0283 | 0.0269 |
| 250S125-30 | 2.5 | 1.25 | 0.1875 | 0.0781 | 30 | 0.0312 | 0.0296 |
| 250S125-33 | 2.5 | 1.25 | 0.1875 | 0.0764 | 33 | 0.0346 | 0.0329 |
| 250S125-43 | 2.5 | 1.25 | 0.1875 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 250S125-54 | 2.5 | 1.25 | 0.1875 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 250S125-68 | 2.5 | 1.25 | 0.1875 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 250S137-33 | 2.5 | 1.375 | 0.375 | 0.0764 | 33 | 0.0346 | 0.0329 |
| 250S137-43 | 2.5 | 1.375 | 0.375 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 250S137-54 | 2.5 | 1.375 | 0.375 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 250S137-68 | 2.5 | 1.375 | 0.375 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 250S137-97 | 2.5 | 1.375 | 0.375 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 250S162-33 | 2.5 | 1.625 | 0.5 | 0.0764 | 33 | 0.0346 | 0.0329 |
| 250S162-43 | 2.5 | 1.625 | 0.5 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 250S162-54 | 2.5 | 1.625 | 0.5 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 250S162-68 | 2.5 | 1.625 | 0.5 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 250S162-97 | 2.5 | 1.625 | 0.5 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 250S200-33 | 2.5 | 2 | 0.625 | 0.0764 | 33 | 0.0346 | 0.0329 |
| 250S200-43 | 2.5 | 2 | 0.625 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 250S200-54 | 2.5 | 2 | 0.625 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 250S200-68 | 2.5 | 2 | 0.625 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 250S200-97 | 2.5 | 2 | 0.625 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 250S250-43 | 2.5 | 2.5 | 0.625 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 250S250-54 | 2.5 | 2.5 | 0.625 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 250S250-68 | 2.5 | 2.5 | 0.625 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 250S250-97 | 2.5 | 2.5 | 0.625 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 350S125-18 | 3.5 | 1.25 | 0.1875 | 0.0843 | 18 | 0.0188 | 0.0179 |
| 350S125-27 | 3.5 | 1.25 | 0.1875 | 0.0796 | 27 | 0.0283 | 0.0269 |
| 350S125-30 | 3.5 | 1.25 | 0.1875 | 0.0781 | 30 | 0.0312 | 0.0296 |
| 350S125-33 | 3.5 | 1.25 | 0.1875 | 0.0764 | 33 | 0.0346 | 0.0329 |
| 350S125-43 | 3.5 | 1.25 | 0.1875 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 350S125-54 | 3.5 | 1.25 | 0.1875 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 350S125-68 | 3.5 | 1.25 | 0.1875 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 350S137-33 | 3.5 | 1.375 | 0.375 | 0.0764 | 33 | 0.0346 | 0.0329 |
| 350S137-43 | 3.5 | 1.375 | 0.375 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 350S137-54 | 3.5 | 1.375 | 0.375 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 350S137-68 | 3.5 | 1.375 | 0.375 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 350S137-97 | 3.5 | 1.375 | 0.375 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 350S162-33 | 3.5 | 1.625 | 0.5 | 0.0764 | 33 | 0.0346 | 0.0329 |
| 350S162-43 | 3.5 | 1.625 | 0.5 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 350S162-54 | 3.5 | 1.625 | 0.5 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 350S162-68 | 3.5 | 1.625 | 0.5 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 350S162-97 | 3.5 | 1.625 | 0.5 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 350S162-118 | 3.5 | 1.625 | 0.5 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 350S200-33 | 3.5 | 2 | 0.625 | 0.0764 | 33 | 0.0346 | 0.0329 |
| 350S200-43 | 3.5 | 2 | 0.625 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 350S200-54 | 3.5 | 2 | 0.625 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 350S200-68 | 3.5 | 2 | 0.625 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 350S200-97 | 3.5 | 2 | 0.625 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 350S200-118 | 3.5 | 2 | 0.625 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 350S250-43 | 3.5 | 2.5 | 0.625 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 350S250-54 | 3.5 | 2.5 | 0.625 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 350S250-68 | 3.5 | 2.5 | 0.625 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 350S250-97 | 3.5 | 2.5 | 0.625 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 350S250-118 | 3.5 | 2.5 | 0.625 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 350S300-54 | 3.5 | 3 | 1 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 350S300-68 | 3.5 | 3 | 1 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 350S300-97 | 3.5 | 3 | 1 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 350S300-118 | 3.5 | 3 | 1 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 350S350-54 | 3.5 | 3.5 | 1 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 350S350-68 | 3.5 | 3.5 | 1 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 350S350-97 | 3.5 | 3.5 | 1 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 350S350-118 | 3.5 | 3.5 | 1 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 362S125-18 | 3.625 | 1.25 | 0.1875 | 0.0843 | 18 | 0.0188 | 0.0179 |
| 362S125-27 | 3.625 | 1.25 | 0.1875 | 0.0796 | 27 | 0.0283 | 0.0269 |
| 362S125-30 | 3.625 | 1.25 | 0.1875 | 0.0781 | 30 | 0.0312 | 0.0296 |
| 362S125-33 | 3.625 | 1.25 | 0.1875 | 0.0764 | 33 | 0.0346 | 0.0329 |
| 362S125-43 | 3.625 | 1.25 | 0.1875 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 362S125-54 | 3.625 | 1.25 | 0.1875 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 362S125-68 | 3.625 | 1.25 | 0.1875 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 362S137-33 | 3.625 | 1.375 | 0.375 | 0.0764 | 33 | 0.0346 | 0.0346 |
| 362S137-43 | 3.625 | 1.375 | 0.375 | 0.0712 | 43 | 0.0451 | 0.0451 |
| 362S137-54 | 3.625 | 1.375 | 0.375 | 0.0849 | 54 | 0.0566 | 0.0566 |
| 362S137-68 | 3.625 | 1.375 | 0.375 | 0.1069 | 68 | 0.0713 | 0.0713 |
| 362S137-97 | 3.625 | 1.375 | 0.375 | 0.1525 | 97 | 0.1017 | 0.1017 |
| 362S162-33 | 3.625 | 1.625 | 0.5 | 0.0764 | 33 | 0.0346 | 0.0346 |
| 362S162-43 | 3.625 | 1.625 | 0.5 | 0.0712 | 43 | 0.0451 | 0.0451 |
| 362S162-54 | 3.625 | 1.625 | 0.5 | 0.0849 | 54 | 0.0566 | 0.0566 |
| 362S162-68 | 3.625 | 1.625 | 0.5 | 0.1069 | 68 | 0.0713 | 0.0713 |
| 362S162-97 | 3.625 | 1.625 | 0.5 | 0.1525 | 97 | 0.1017 | 0.1017 |
| 362S162-118 | 3.625 | 1.625 | 0.5 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 362S200-33 | 3.625 | 2 | 0.625 | 0.0764 | 33 | 0.0346 | 0.0346 |
| 362S200-43 | 3.625 | 2 | 0.625 | 0.0712 | 43 | 0.0451 | 0.0451 |
| 362S200-54 | 3.625 | 2 | 0.625 | 0.0849 | 54 | 0.0566 | 0.0566 |
| 362S200-68 | 3.625 | 2 | 0.625 | 0.1069 | 68 | 0.0713 | 0.0713 |
| 362S200-97 | 3.625 | 2 | 0.625 | 0.1525 | 97 | 0.1017 | 0.1017 |
| 362S200-118 | 3.625 | 2 | 0.625 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 362S250-43 | 3.625 | 2.5 | 0.625 | 0.0712 | 43 | 0.0451 | 0.0451 |
| 362S250-54 | 3.625 | 2.5 | 0.625 | 0.0849 | 54 | 0.0566 | 0.0566 |
| 362S250-68 | 3.625 | 2.5 | 0.625 | 0.1069 | 68 | 0.0713 | 0.0713 |
| 362S250-97 | 3.625 | 2.5 | 0.625 | 0.1525 | 97 | 0.1017 | 0.1017 |
| 362S250-118 | 3.625 | 2.5 | 0.625 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 362S300-54 | 3.625 | 3 | 1 | 0.0849 | 54 | 0.0566 | 0.0566 |
| 362S300-68 | 3.625 | 3 | 1 | 0.1069 | 68 | 0.0713 | 0.0713 |
| 362S300-97 | 3.625 | 3 | 1 | 0.1525 | 97 | 0.1017 | 0.1017 |
| 362S300-118 | 3.625 | 3 | 1 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 362S350-54 | 3.625 | 3.5 | 1 | 0.0849 | 54 | 0.0566 | 0.0566 |
| 362S350-68 | 3.625 | 3.5 | 1 | 0.1069 | 68 | 0.0713 | 0.0713 |
| 362S350-97 | 3.625 | 3.5 | 1 | 0.1525 | 97 | 0.1017 | 0.1017 |
| 362S350-118 | 3.625 | 3.5 | 1 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 400S125-18[4] | 4 | 1.25 | 0.1875 | 0.0843 | 18 | 0.0188 | 0.0179 |
| 400S125-27 | 4 | 1.25 | 0.1875 | 0.0796 | 27 | 0.0283 | 0.0269 |
| 400S125-30 | 4 | 1.25 | 0.1875 | 0.0781 | 30 | 0.0312 | 0.0296 |
| 400S125-33 | 4 | 1.25 | 0.1875 | 0.0764 | 33 | 0.0346 | 0.0329 |
| 400S125-43 | 4 | 1.25 | 0.1875 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 400S125-54 | 4 | 1.25 | 0.1875 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 400S125-68 | 4 | 1.25 | 0.1875 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 400S137-33 | 4 | 1.375 | 0.375 | 0.0764 | 33 | 0.0346 | 0.0346 |
| 400S137-43 | 4 | 1.375 | 0.375 | 0.0712 | 43 | 0.0566 | 0.0451 |
| 400S137-54 | 4 | 1.375 | 0.375 | 0.0849 | 54 | 0.0713 | 0.0566 |
| 400S137-68 | 4 | 1.375 | 0.375 | 0.1069 | 68 | 0.1017 | 0.0713 |
| 400S137-97 | 4 | 1.375 | 0.375 | 0.1525 | 97 | 0.1017 | 0.1017 |
| 400S162-33 | 4 | 1.625 | 0.5 | 0.0764 | 33 | 0.0346 | 0.0346 |
| 400S162-43 | 4 | 1.625 | 0.5 | 0.0712 | 43 | 0.0451 | 0.0451 |
| 400S162-54 | 4 | 1.625 | 0.5 | 0.0849 | 54 | 0.0566 | 0.0566 |
| 400S162-68 | 4 | 1.625 | 0.5 | 0.1069 | 68 | 0.0713 | 0.0713 |
| 400S162-97 | 4 | 1.625 | 0.5 | 0.1525 | 97 | 0.1017 | 0.1017 |
| 400S162-118 | 4 | 1.625 | 0.5 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 400S200-33 | 4 | 2 | 0.625 | 0.0764 | 33 | 0.0346 | 0.0346 |
| 400S200-43 | 4 | 2 | 0.625 | 0.0712 | 43 | 0.0451 | 0.0451 |
| 400S200-54 | 4 | 2 | 0.625 | 0.0849 | 54 | 0.0566 | 0.0566 |
| 400S200-68 | 4 | 2 | 0.625 | 0.1069 | 68 | 0.0713 | 0.0713 |
| 400S200-97 | 4 | 2 | 0.625 | 0.1525 | 97 | 0.1017 | 0.1017 |
| 400S200-118 | 4 | 2 | 0.625 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 400S250-43 | 4 | 2.5 | 0.625 | 0.0712 | 43 | 0.0451 | 0.0451 |
| 400S250-54 | 4 | 2.5 | 0.625 | 0.0849 | 54 | 0.0566 | 0.0566 |
| 400S250-68 | 4 | 2.5 | 0.625 | 0.1069 | 68 | 0.0713 | 0.0713 |
| 400S250-97 | 4 | 2.5 | 0.625 | 0.1525 | 97 | 0.1017 | 0.1017 |
| 400S250-118 | 4 | 2.5 | 0.625 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 400S300-54 | 4 | 3 | 1 | 0.0849 | 54 | 0.0566 | 0.0566 |
| 400S300-68 | 4 | 3 | 1 | 0.1069 | 68 | 0.0713 | 0.0713 |
| 400S300-97 | 4 | 3 | 1 | 0.1525 | 97 | 0.1017 | 0.1017 |
| 400S300-118 | 4 | 3 | 1 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 400S350-54 | 4 | 3.5 | 1 | 0.0849 | 54 | 0.0566 | 0.0566 |
| 400S350-68 | 4 | 3.5 | 1 | 0.1069 | 68 | 0.0713 | 0.0713 |
| 400S350-97 | 4 | 3.5 | 1 | 0.1525 | 97 | 0.1017 | 0.1017 |
| 400S350-118 | 4 | 3.5 | 1 | 0.1863 | 118 | 0.1242 | 0.1180 |

Table 1 continued on next page.

**TABLE 1—C-SECTIONS (STUDS)[1] (Continued)**

| SECTION | DEPTH[2] (in) | FLANGE (in) | LIP (in) | INSIDE CORNER RADII (in) | MILS | DESIGN THICK. (in) | MIN. BASE METAL THICK.[3] (in) |
|---|---|---|---|---|---|---|---|
| 550S125-27 | 5.5 | 1.25 | 0.1875 | 0.0796 | 27 | 0.0283 | 0.0269 |
| 550S125-30 | 5.5 | 1.25 | 0.1875 | 0.0781 | 30 | 0.0312 | 0.0296 |
| 550S125-33 | 5.5 | 1.25 | 0.1875 | 0.0764 | 33 | 0.0346 | 0.0329 |
| 550S125-43 | 5.5 | 1.25 | 0.1875 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 550S125-54 | 5.5 | 1.25 | 0.1875 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 550S125-68 | 5.5 | 1.25 | 0.1875 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 550S137-33 | 5.5 | 1.375 | 0.375 | 0.0764 | 33 | 0.0346 | 0.0329 |
| 550S137-43 | 5.5 | 1.375 | 0.375 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 550S137-54 | 5.5 | 1.375 | 0.375 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 550S137-68 | 5.5 | 1.375 | 0.375 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 550S137-97 | 5.5 | 1.375 | 0.375 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 550S162-33 | 5.5 | 1.625 | 0.5 | 0.0764 | 33 | 0.0346 | 0.0329 |
| 550S162-43 | 5.5 | 1.625 | 0.5 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 550S162-54 | 5.5 | 1.625 | 0.5 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 550S162-68 | 5.5 | 1.625 | 0.5 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 550S162-97 | 5.5 | 1.625 | 0.5 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 550S162-118 | 5.5 | 1.625 | 0.5 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 550S200-33 | 5.5 | 2 | 0.625 | 0.0764 | 33 | 0.0346 | 0.0329 |
| 550S200-43 | 5.5 | 2 | 0.625 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 550S200-54 | 5.5 | 2 | 0.625 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 550S200-68 | 5.5 | 2 | 0.625 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 550S200-97 | 5.5 | 2 | 0.625 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 550S200-118 | 5.5 | 2 | 0.625 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 550S250-43 | 5.5 | 2.5 | 0.625 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 550S250-54 | 5.5 | 2.5 | 0.625 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 550S250-68 | 5.5 | 2.5 | 0.625 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 550S250-97 | 5.5 | 2.5 | 0.625 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 550S250-118 | 5.5 | 2.5 | 0.625 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 550S300-54 | 5.5 | 3 | 1 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 550S300-68 | 5.5 | 3 | 1 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 550S300-97 | 5.5 | 3 | 1 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 550S300-118 | 5.5 | 3 | 1 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 550S350-54 | 5.5 | 3.5 | 1 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 550S350-68 | 5.5 | 3.5 | 1 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 550S350-97 | 5.5 | 3.5 | 1 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 550S350-118 | 5.5 | 3.5 | 1 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 600S125-27[4] | 6 | 1.25 | 0.1875 | 0.0796 | 27 | 0.0283 | 0.0269 |
| 600S125-30 | 6 | 1.25 | 0.1875 | 0.0781 | 30 | 0.0312 | 0.0296 |
| 600S125-33 | 6 | 1.25 | 0.1875 | 0.0764 | 33 | 0.0346 | 0.0329 |
| 600S125-43 | 6 | 1.25 | 0.1875 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 600S125-54 | 6 | 1.25 | 0.1875 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 600S125-68 | 6 | 1.25 | 0.1875 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 600S137-33 | 6 | 1.375 | 0.375 | 0.0764 | 33 | 0.0346 | 0.0329 |
| 600S137-43 | 6 | 1.375 | 0.375 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 600S137-54 | 6 | 1.375 | 0.375 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 600S137-68 | 6 | 1.375 | 0.375 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 600S137-97 | 6 | 1.375 | 0.375 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 600S162-33 | 6 | 1.625 | 0.5 | 0.0764 | 33 | 0.0346 | 0.0329 |
| 600S162-43 | 6 | 1.625 | 0.5 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 600S162-54 | 6 | 1.625 | 0.5 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 600S162-68 | 6 | 1.625 | 0.5 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 600S162-97 | 6 | 1.625 | 0.5 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 600S162-118 | 6 | 1.625 | 0.5 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 600S200-33 | 6 | 2 | 0.625 | 0.0764 | 33 | 0.0346 | 0.0329 |
| 600S200-43 | 6 | 2 | 0.625 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 600S200-54 | 6 | 2 | 0.625 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 600S200-68 | 6 | 2 | 0.625 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 600S200-97 | 6 | 2 | 0.625 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 600S200-118 | 6 | 2 | 0.625 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 600S250-43 | 6 | 2.5 | 0.625 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 600S250-54 | 6 | 2.5 | 0.625 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 600S250-68 | 6 | 2.5 | 0.625 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 600S250-97 | 6 | 2.5 | 0.625 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 600S250-118 | 6 | 2.5 | 0.625 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 600S300-54 | 6 | 3 | 1 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 600S300-68 | 6 | 3 | 1 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 600S300-97 | 6 | 3 | 1 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 600S300-118 | 6 | 3 | 1 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 600S350-54 | 6 | 3.5 | 1 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 600S350-68 | 6 | 3.5 | 1 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 600S350-97 | 6 | 3.5 | 1 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 600S350-118 | 6 | 3.5 | 1 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 725S125-27[4] | 7.25 | 1.25 | 0.1875 | 0.0796 | 27 | 0.0283 | 0.0269 |
| 725S125-30[4] | 7.25 | 1.25 | 0.1875 | 0.0781 | 30 | 0.0312 | 0.0296 |
| 725S125-33[4] | 7.25 | 1.25 | 0.1875 | 0.0764 | 33 | 0.0346 | 0.0329 |
| 725S125-43 | 7.25 | 1.25 | 0.1875 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 725S125-54 | 7.25 | 1.25 | 0.1875 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 725S125-68 | 7.25 | 1.25 | 0.1875 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 725S137-33[4] | 7.25 | 1.375 | 0.375 | 0.0764 | 33 | 0.0346 | 0.0329 |
| 725S137-43 | 7.25 | 1.375 | 0.375 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 725S137-54 | 7.25 | 1.375 | 0.375 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 725S137-68 | 7.25 | 1.375 | 0.375 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 725S137-97 | 7.25 | 1.375 | 0.375 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 725S162-33[4] | 7.25 | 1.625 | 0.5 | 0.0764 | 33 | 0.0346 | 0.0329 |
| 725S162-43 | 7.25 | 1.625 | 0.5 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 725S162-54 | 7.25 | 1.625 | 0.5 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 725S162-68 | 7.25 | 1.625 | 0.5 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 725S162-97 | 7.25 | 1.625 | 0.5 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 725S162-118 | 7.25 | 1.625 | 0.5 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 725S200-33[4] | 7.25 | 2 | 0.625 | 0.0764 | 33 | 0.0346 | 0.0329 |
| 725S200-43 | 7.25 | 2 | 0.625 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 725S200-54 | 7.25 | 2 | 0.625 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 725S200-68 | 7.25 | 2 | 0.625 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 725S200-97 | 7.25 | 2 | 0.625 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 725S200-118 | 7.25 | 2 | 0.625 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 725S250-43 | 7.25 | 2.5 | 0.625 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 725S250-54 | 7.25 | 2.5 | 0.625 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 725S250-68 | 7.25 | 2.5 | 0.625 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 725S250-97 | 7.25 | 2.5 | 0.625 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 725S250-118 | 7.25 | 2.5 | 0.625 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 725S300-54 | 7.25 | 3 | 1 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 725S300-68 | 7.25 | 3 | 1 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 725S300-97 | 7.25 | 3 | 1 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 725S300-118 | 7.25 | 3 | 1 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 725S350-54 | 7.25 | 3.5 | 1 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 725S350-68 | 7.25 | 3.5 | 1 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 725S350-97 | 7.25 | 3.5 | 1 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 725S350-118 | 7.25 | 3.5 | 1 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 800S125-30[4] | 8 | 1.25 | 0.1875 | 0.0781 | 30 | 0.0312 | 0.0296 |
| 800S125-33[1] | 8 | 1.25 | 0.1875 | 0.0764 | 33 | 0.0346 | 0.0329 |
| 800S125-43 | 8 | 1.25 | 0.1875 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 800S125-54 | 8 | 1.25 | 0.1875 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 800S125-68 | 8 | 1.25 | 0.1875 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 800S137-33[4] | 8 | 1.375 | 0.375 | 0.0764 | 33 | 0.0346 | 0.0329 |
| 800S137-43 | 8 | 1.375 | 0.375 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 800S137-54 | 8 | 1.375 | 0.375 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 800S137-68 | 8 | 1.375 | 0.375 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 800S137-97 | 8 | 1.375 | 0.375 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 800S162-33[4] | 8 | 1.625 | 0.5 | 0.0764 | 33 | 0.0346 | 0.0329 |
| 800S162-43 | 8 | 1.625 | 0.5 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 800S162-54 | 8 | 1.625 | 0.5 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 800S162-68 | 8 | 1.625 | 0.5 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 800S162-97 | 8 | 1.625 | 0.5 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 800S162-118 | 8 | 1.625 | 0.5 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 800S200-33[4] | 8 | 2 | 0.625 | 0.0764 | 33 | 0.0346 | 0.0329 |
| 800S200-43 | 8 | 2 | 0.625 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 800S200-54 | 8 | 2 | 0.625 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 800S200-68 | 8 | 2 | 0.625 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 800S200-97 | 8 | 2 | 0.625 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 800S200-118 | 8 | 2 | 0.625 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 800S250-43 | 8 | 2.5 | 0.625 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 800S250-54 | 8 | 2.5 | 0.625 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 800S250-68 | 8 | 2.5 | 0.625 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 800S250-97 | 8 | 2.5 | 0.625 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 800S250-118 | 8 | 2.5 | 0.625 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 800S300-54 | 8 | 3 | 1 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 800S300-68 | 8 | 3 | 1 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 800S300-97 | 8 | 3 | 1 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 800S300-118 | 8 | 3 | 1 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 800S350-54 | 8 | 3 | 1 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 800S350-68 | 8 | 3 | 1 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 800S350-97 | 8 | 3 | 1 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 800S350-118 | 8 | 3.5 | 1 | 0.1863 | 118 | 0.1242 | 0.1180 |

Table 1 continued on next page.

**TABLE 1—C-SECTIONS (STUDS)[1] (Continued)**

| SECTION | DEPTH[2] (in) | FLANGE (in) | LIP (in) | INSIDE CORNER RADII (in) | MILS | DESIGN THICK. (in) | MIN. BASE METAL THICK.[3] (in) |
|---|---|---|---|---|---|---|---|
| 925S137-43 | 9.25 | 1.375 | 0.375 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 925S137-54 | 9.25 | 1.375 | 0.375 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 925S137-68 | 9.25 | 1.375 | 0.375 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 925S137-97 | 9.25 | 1.375 | 0.375 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 925S162-43 | 9.25 | 1.625 | 0.5 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 925S162-54 | 9.25 | 1.625 | 0.5 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 925S162-68 | 9.25 | 1.625 | 0.5 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 925S162-97 | 9.25 | 1.625 | 0.5 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 925S162-118 | 9.25 | 1.625 | 0.5 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 925S200-43 | 9.25 | 2 | 0.625 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 925S200-54 | 9.25 | 2 | 0.625 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 925S200-68 | 9.25 | 2 | 0.625 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 925S200-97 | 9.25 | 2 | 0.625 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 925S200-118 | 9.25 | 2 | 0.625 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 925S250-43 | 9.25 | 2.5 | 0.625 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 925S250-54 | 9.25 | 2.5 | 0.625 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 925S250-68 | 9.25 | 2.5 | 0.625 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 925S250-97 | 9.25 | 2.5 | 0.625 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 925S250-118 | 9.25 | 2.5 | 0.625 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 925S300-54 | 9.25 | 3 | 1 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 925S300-68 | 9.25 | 3 | 1 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 925S300-97 | 9.25 | 3 | 1 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 925S300-118 | 9.25 | 3 | 1 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 925S350-54 | 9.25 | 3.5 | 1 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 925S350-68 | 9.25 | 3.5 | 1 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 925S350-97 | 9.25 | 3.5 | 1 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 925S350-118 | 9.25 | 3.5 | 1 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 1000S137-43[4] | 10 | 1.375 | 0.375 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 1000S137-54 | 10 | 1.375 | 0.375 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 1000S137-68 | 10 | 1.375 | 0.375 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1000S137-97 | 10 | 1.375 | 0.375 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1000S162-43[4] | 10 | 1.625 | 0.5 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 1000S162-54 | 10 | 1.625 | 0.5 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 1000S162-68 | 10 | 1.625 | 0.5 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1000S162-97 | 10 | 1.625 | 0.5 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1000S162-118 | 10 | 1.625 | 0.5 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 1000S200-43[4] | 10 | 2 | 0.625 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 1000S200-54 | 10 | 2 | 0.625 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 1000S200-68 | 10 | 2 | 0.625 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1000S200-97 | 10 | 2 | 0.625 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1000S200-118 | 10 | 2 | 0.625 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 1000S250-43[4] | 10 | 2.5 | 0.625 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 1000S250-54 | 10 | 2.5 | 0.625 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 1000S250-68 | 10 | 2.5 | 0.625 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1000S250-97 | 10 | 2.5 | 0.625 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1000S250-118 | 10 | 2.5 | 0.625 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 1000S300-54 | 10 | 3 | 1 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 1000S300-68 | 10 | 3 | 1 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1000S300-97 | 10 | 3 | 1 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1000S300-118 | 10 | 3 | 1 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 1000S350-54 | 10 | 3.5 | 1 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 1000S350-68 | 10 | 3.5 | 1 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1000S350-97 | 10 | 3.5 | 1 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1000S350-118 | 10 | 3.5 | 1 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 1150S137-43[4] | 11.5 | 1.375 | 0.375 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 1150S137-54 | 11.5 | 1.375 | 0.375 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 1150S137-68 | 11.5 | 1.375 | 0.375 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1150S137-97 | 11.5 | 1.375 | 0.375 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1150S162-43[4] | 11.5 | 1.625 | 0.5 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 1150S162-54 | 11.5 | 1.625 | 0.5 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 1150S162-68 | 11.5 | 1.625 | 0.5 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1150S162-97 | 11.5 | 1.625 | 0.5 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1150S162-118 | 11.5 | 1.625 | 0.5 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 1150S200-43[4] | 11.5 | 2 | 0.625 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 1150S200-54 | 11.5 | 2 | 0.625 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 1150S200-68 | 11.5 | 2 | 0.625 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1150S200-97 | 11.5 | 2 | 0.625 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1150S200-118 | 11.5 | 2 | 0.625 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 1150S250-43[4] | 11.5 | 2 | 0.625 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 1150S250-54 | 11.5 | 2 | 0.625 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 1150S250-68 | 11.5 | 2.5 | 0.625 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1150S250-97 | 11.5 | 2.5 | 0.625 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1150S250-118 | 11.5 | 2.5 | 0.625 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 1150S300-54 | 11.5 | 3 | 1 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 1150S300-68 | 11.5 | 3 | 1 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1150S300-97 | 11.5 | 3 | 1 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1150S300-118 | 11.5 | 3 | 1 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 1150S350-54 | 11.5 | 3 | 1 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 1150S350-68 | 11.5 | 3 | 1 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1150S350-97 | 11.5 | 3 | 1 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1150S350-118 | 11.5 | 3 | 1 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 1200S137-54[4] | 12 | 1.375 | 0.375 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 1200S137-68 | 12 | 1.375 | 0.375 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1200S137-97 | 12 | 1.375 | 0.375 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1200S162-54[4] | 12 | 1.625 | 0.5 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 1200S162-68 | 12 | 1.625 | 0.5 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1200S162-97 | 12 | 1.625 | 0.5 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1200S162-118 | 12 | 1.625 | 0.5 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 1200S200-54[4] | 12 | 2 | 0.625 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 1200S200-68 | 12 | 2 | 0.625 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1200S200-97 | 12 | 2 | 0.625 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1200S200-118 | 12 | 2 | 0.625 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 1200S250-54[4] | 12 | 2.5 | 0.625 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 1200S250-68 | 12 | 2.5 | 0.625 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1200S250-97 | 12 | 2.5 | 0.625 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1200S250-118 | 12 | 2.5 | 0.625 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 1200S300-54[4] | 12 | 3 | 1 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 1200S300-68 | 12 | 3 | 1 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1200S300-97 | 12 | 3 | 1 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1200S300-118 | 12 | 3 | 1 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 1200S350-54[4] | 12 | 3.5 | 1 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 1200S350-68 | 12 | 3.5 | 1 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1200S350-97 | 12 | 3.5 | 1 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1200S350-118 | 12 | 3.5 | 1 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 1350S137-54[4] | 13.5 | 1.375 | 0.375 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 1350S137-68 | 13.5 | 1.375 | 0.375 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1350S137-97 | 13.5 | 1.375 | 0.375 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1350S162-54[4] | 13.5 | 1.625 | 0.5 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 1350S162-68 | 13.5 | 1.625 | 0.5 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1350S162-97 | 13.5 | 1.625 | 0.5 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1350S162-118 | 13.5 | 1.625 | 0.5 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 1350S200-54[4] | 13.5 | 2 | 0.625 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 1350S200-68 | 13.5 | 2 | 0.625 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1350S200-97 | 13.5 | 2 | 0.625 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1350S200-118 | 13.5 | 2 | 0.625 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 1350S250-54[4] | 13.5 | 2.5 | 0.625 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 1350S250-68 | 13.5 | 2.5 | 0.625 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1350S250-97 | 13.5 | 2.5 | 0.625 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1350S250-118 | 13.5 | 2.5 | 0.625 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 1350S300-54[4] | 13.5 | 3 | 1 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 1350S300-68 | 13.5 | 3 | 1 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1350S300-97 | 13.5 | 3 | 1 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1350S300-118 | 13.5 | 3 | 1 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 1350S350-54[4] | 13.5 | 3.5 | 1 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 1350S350-68 | 13.5 | 3.5 | 1 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1350S350-97 | 13.5 | 3.5 | 1 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1350S350-118 | 13.5 | 3.5 | 1 | 0.1863 | 118 | 0.1242 | 0.1180 |

Table 1 continued on next page.

**TABLE 1—C-SECTIONS (STUDS)[1] (Continued)**

| SECTION | DEPTH[2] (in) | FLANGE (in) | LIP (in) | INSIDE CORNER RADII (in) | MILS | DESIGN THICK. (in) | MIN. BASE METAL THICK.[3] (in) |
|---|---|---|---|---|---|---|---|
| 1400S137-54[4] | 14 | 1.375 | 0.375 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 1400S137-68 | 14 | 1.375 | 0.375 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1400S137-97 | 14 | 1.375 | 0.375 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1400S162-54[4] | 14 | 1.625 | 0.5 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 1400S162-68 | 14 | 1.625 | 0.5 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1400S162-97 | 14 | 1.625 | 0.5 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1400S162-118 | 14 | 1.625 | 0.5 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 1400S200-54[4] | 14 | 2 | 0.625 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 1400S200-68 | 14 | 2 | 0.625 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1400S200-97 | 14 | 2 | 0.625 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1400S200-118 | 14 | 2 | 0.625 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 1400S250-54[4] | 14 | 2.5 | 0.625 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 1400S250-68 | 14 | 2.5 | 0.625 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1400S250-97 | 14 | 2.5 | 0.625 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1400S250-118 | 14 | 2.5 | 0.625 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 1400S300-54[4] | 14 | 3 | 1 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 1400S300-68 | 14 | 3 | 1 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1400S300-97 | 14 | 3 | 1 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1400S300-118 | 14 | 3 | 1 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 1400S350-54[4] | 14 | 3.5 | 1 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 1400S350-68 | 14 | 3.5 | 1 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1400S350-97 | 14 | 3.5 | 1 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1400S350-118 | 14 | 3.5 | 1 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 1600S162-68[4] | 16 | 1.625 | 0.625 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1600S162-97 | 16 | 1.625 | 0.625 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1600S162-118 | 16 | 1.625 | 0.625 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 1600S200-68[4] | 16 | 2 | 0.625 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1600S200-97 | 16 | 2 | 0.625 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1600S200-118 | 16 | 2 | 0.625 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 1600S250-68[4] | 16 | 2.5 | 0.625 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1600S250-97 | 16 | 2.5 | 0.625 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1600S250-118 | 16 | 2.5 | 0.625 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 1600S300-68[4] | 16 | 3 | 1 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1600S300-97 | 16 | 3 | 1 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1600S300-118 | 16 | 3 | 1 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 1600S350-68[4] | 16 | 3.5 | 1 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1600S350-97 | 16 | 3.5 | 1 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1600S350-118 | 16 | 3.5 | 1 | 0.1863 | 118 | 0.1242 | 0.1180 |

For **SI:** 1 inch = 25.4 mm.

[1] See Table 3 for member properties. See Figure 1 for illustration of member cross section.
[2] Depth measured from outside face to outside face of flanges.
[3] Base metal thickness of members, exclusive of coatings, delivered to the jobsite must be a minimum of 95 percent of the design thickness.
[4] Web height-to-thickness ratio, h/t, exceeds 200. Web must have bearing stiffeners in accordance with AISI S100. No holes or punch-outs are permitted in the web.

**TABLE 2—CHANNEL (TRACK) SECTIONS[1]**

| SECTION | DEPTH[2] (in) | FLANGE (in) | INSIDE CORNER RADII (in) | MILS | DESIGN THICK. (in) | MIN. BASE METAL THICK.[3] (in) |
|---|---|---|---|---|---|---|
| 162T125-18 | 1.625 | 1.25 | 0.0843 | 18 | 0.0188 | 0.0179 |
| 162T125-27 | 1.625 | 1.25 | 0.0796 | 27 | 0.0283 | 0.0269 |
| 162T125-30 | 1.625 | 1.25 | 0.0781 | 30 | 0.0312 | 0.0296 |
| 162T125-33 | 1.625 | 1.25 | 0.0764 | 33 | 0.0346 | 0.0329 |
| 162T125-43 | 1.625 | 1.25 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 162T125-54 | 1.625 | 1.25 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 162T125-68 | 1.625 | 1.25 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 162T125-97 | 1.625 | 1.25 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 162T150-18 | 1.625 | 1.5 | 0.0843 | 18 | 0.0188 | 0.0179 |
| 162T150-27 | 1.625 | 1.5 | 0.0796 | 27 | 0.0283 | 0.0269 |
| 162T150-30 | 1.625 | 1.5 | 0.0781 | 30 | 0.0312 | 0.0296 |
| 162T150-33 | 1.625 | 1.5 | 0.0764 | 33 | 0.0346 | 0.0329 |
| 162T150-43 | 1.625 | 1.5 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 162T150-54 | 1.625 | 1.5 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 162T150-68 | 1.625 | 1.5 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 162T150-97 | 1.625 | 1.5 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 162T200-33 | 1.625 | 2 | 0.0764 | 33 | 0.0346 | 0.0329 |
| 162T200-43 | 1.625 | 2 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 162T200-54 | 1.625 | 2 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 162T200-68 | 1.625 | 2 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 162T200-97 | 1.625 | 2 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 250T125-18 | 2.5 | 1.25 | 0.0843 | 18 | 0.0188 | 0.0179 |
| 250T125-27 | 2.5 | 1.25 | 0.0796 | 27 | 0.0283 | 0.0269 |
| 250T125-30 | 2.5 | 1.25 | 0.0781 | 30 | 0.0312 | 0.0296 |
| 250T125-33 | 2.5 | 1.25 | 0.0764 | 33 | 0.0346 | 0.0329 |
| 250T125-43 | 2.5 | 1.25 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 250T125-54 | 2.5 | 1.25 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 250T125-68 | 2.5 | 1.25 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 250T125-97 | 2.5 | 1.25 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 250T150-27 | 2.5 | 1.5 | 0.0796 | 27 | 0.0283 | 0.0269 |
| 250T150-30 | 2.5 | 1.5 | 0.0781 | 30 | 0.0312 | 0.0296 |
| 250T150-33 | 2.5 | 1.5 | 0.0764 | 33 | 0.0346 | 0.0329 |
| 250T150-43 | 2.5 | 1.5 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 250T150-54 | 2.5 | 1.5 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 250T150-68 | 2.5 | 1.5 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 250T150-97 | 2.5 | 1.5 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 250T200-33 | 2.5 | 2 | 0.0764 | 33 | 0.0346 | 0.0329 |
| 250T200-43 | 2.5 | 2 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 250T200-54 | 2.5 | 2 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 250T200-68 | 2.5 | 2 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 250T200-97 | 2.5 | 2 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 250T250-43 | 2.5 | 2.5 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 250T250-54 | 2.5 | 2.5 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 250T250-68 | 2.5 | 2.5 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 250T250-97 | 2.5 | 2.5 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 250T300-54 | 2.5 | 3 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 250T300-68 | 2.5 | 3 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 250T300-97 | 2.5 | 3 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 350T125-18 | 3.5 | 1.25 | 0.0843 | 18 | 0.0188 | 0.0179 |
| 350T125-27 | 3.5 | 1.25 | 0.0796 | 27 | 0.0283 | 0.0269 |
| 350T125-30 | 3.5 | 1.25 | 0.0781 | 30 | 0.0312 | 0.0296 |
| 350T125-33 | 3.5 | 1.25 | 0.0764 | 33 | 0.0346 | 0.0329 |
| 350T125-43 | 3.5 | 1.25 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 350T125-54 | 3.5 | 1.25 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 350T125-68 | 3.5 | 1.25 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 350T125-97 | 3.5 | 1.25 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 350T125-118 | 3.5 | 1.25 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 350T150-27 | 3.5 | 1.5 | 0.0796 | 27 | 0.0283 | 0.0269 |
| 350T150-30 | 3.5 | 1.5 | 0.0781 | 30 | 0.0312 | 0.0296 |
| 350T150-33 | 3.5 | 1.5 | 0.0764 | 33 | 0.0346 | 0.0329 |
| 350T150-43 | 3.5 | 1.5 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 350T150-54 | 3.5 | 1.5 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 350T150-68 | 3.5 | 1.5 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 350T150-97 | 3.5 | 1.5 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 350T150-118 | 3.5 | 1.5 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 350T200-33 | 3.5 | 2 | 0.0764 | 33 | 0.0346 | 0.0329 |
| 350T200-43 | 3.5 | 2 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 350T200-54 | 3.5 | 2 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 350T200-68 | 3.5 | 2 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 350T200-97 | 3.5 | 2 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 350T200-118 | 3.5 | 2 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 350T250-43 | 3.5 | 2.5 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 350T250-54 | 3.5 | 2.5 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 350T250-68 | 3.5 | 2.5 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 350T250-97 | 3.5 | 2.5 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 350T250-118 | 3.5 | 2.5 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 350T300-54 | 3.5 | 3 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 350T300-68 | 3.5 | 3 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 350T300-97 | 3.5 | 3 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 350T300-118 | 3.5 | 3 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 350T400-68 | 3.5 | 4 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 350T400-97 | 3.5 | 4 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 350T400-118 | 3.5 | 4 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 362T125-18 | 3.625 | 1.25 | 0.0843 | 18 | 0.0188 | 0.0179 |
| 362T125-27 | 3.625 | 1.25 | 0.0796 | 27 | 0.0283 | 0.0269 |
| 362T125-30 | 3.625 | 1.25 | 0.0781 | 30 | 0.0312 | 0.0296 |
| 362T125-33 | 3.625 | 1.25 | 0.0764 | 33 | 0.0346 | 0.0329 |
| 362T125-43 | 3.625 | 1.25 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 362T125-54 | 3.625 | 1.25 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 362T125-68 | 3.625 | 1.25 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 362T125-97 | 3.625 | 1.25 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 362T125-118 | 3.625 | 1.25 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 362T150-27 | 3.625 | 1.5 | 0.0796 | 27 | 0.0283 | 0.0269 |
| 362T150-30 | 3.625 | 1.5 | 0.0781 | 30 | 0.0312 | 0.0296 |
| 362T150-33 | 3.625 | 1.5 | 0.0764 | 33 | 0.0346 | 0.0329 |
| 362T150-43 | 3.625 | 1.5 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 362T150-54 | 3.625 | 1.5 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 362T150-68 | 3.625 | 1.5 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 362T150-97 | 3.625 | 1.5 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 362T150-118 | 3.625 | 1.5 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 362T200-33 | 3.625 | 2 | 0.0764 | 33 | 0.0346 | 0.0329 |
| 362T200-43 | 3.625 | 2 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 362T200-54 | 3.625 | 2 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 362T200-68 | 3.625 | 2 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 362T200-97 | 3.625 | 2 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 362T200-118 | 3.625 | 2 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 362T250-43 | 3.625 | 2.5 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 362T250-54 | 3.625 | 2.5 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 362T250-68 | 3.625 | 2.5 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 362T250-97 | 3.625 | 2.5 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 362T250-118 | 3.625 | 2.5 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 362T300-54 | 3.625 | 3 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 362T300-68 | 3.625 | 3 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 362T300-97 | 3.625 | 3 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 362T300-118 | 3.625 | 3 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 362T400-68 | 3.625 | 4 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 362T400-97 | 3.625 | 4 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 362T400-118 | 3.625 | 4 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 400T125-18[1] | 4 | 1.25 | 0.0843 | 18 | 0.0188 | 0.0179 |
| 400T125-27 | 4 | 1.25 | 0.0796 | 27 | 0.0283 | 0.0269 |
| 400T125-30 | 4 | 1.25 | 0.0781 | 30 | 0.0312 | 0.0296 |
| 400T125-33 | 4 | 1.25 | 0.0764 | 33 | 0.0346 | 0.0329 |
| 400T125-43 | 4 | 1.25 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 400T125-54 | 4 | 1.25 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 400T125-68 | 4 | 1.25 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 400T125-97 | 4 | 1.25 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 400T125-118 | 4 | 1.25 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 400T150-27 | 4 | 1.5 | 0.0796 | 27 | 0.0283 | 0.0269 |
| 400T150-30 | 4 | 1.5 | 0.0781 | 30 | 0.0312 | 0.0296 |
| 400T150-33 | 4 | 1.5 | 0.0764 | 33 | 0.0346 | 0.0329 |
| 400T150-43 | 4 | 1.5 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 400T150-54 | 4 | 1.5 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 400T150-68 | 4 | 1.5 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 400T150-97 | 4 | 1.5 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 400T150-118 | 4 | 1.5 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 400T200-33 | 4 | 2 | 0.0764 | 33 | 0.0346 | 0.0329 |
| 400T200-43 | 4 | 2 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 400T200-54 | 4 | 2 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 400T200-68 | 4 | 2 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 400T200-97 | 4 | 2 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 400T200-118 | 4 | 2 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 400T250-43 | 4 | 2.5 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 400T250-54 | 4 | 2.5 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 400T250-68 | 4 | 2.5 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 400T250-97 | 4 | 2.5 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 400T250-118 | 4 | 2.5 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 400T300-54 | 4 | 3 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 400T300-68 | 4 | 3 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 400T300-97 | 4 | 3 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 400T300-118 | 4 | 3 | 0.1863 | 118 | 0.1242 | 0.1180 |

Table 2 continued on next page.

**TABLE 2—CHANNEL (TRACK) SECTIONS[1] (Continued)**

| SECTION | DEPTH[2] (in) | FLANGE (in) | INSIDE CORNER RADII (in) | MILS | DESIGN THICK. (in) | MIN. BASE METAL THICK.[3] (in) |
|---|---|---|---|---|---|---|
| 400T400-68 | 4 | 4 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 400T400-97 | 4 | 4 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 400T400-118 | 4 | 4 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 550T125-27 | 5.5 | 1.25 | 0.0796 | 27 | 0.0283 | 0.0269 |
| 550T125-30 | 5.5 | 1.25 | 0.0781 | 30 | 0.0312 | 0.0296 |
| 550T125-33 | 5.5 | 1.25 | 0.0764 | 33 | 0.0346 | 0.0329 |
| 550T125-43 | 5.5 | 1.25 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 550T125-54 | 5.5 | 1.25 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 550T125-68 | 5.5 | 1.25 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 550T125-97 | 5.5 | 1.25 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 550T125-118 | 5.5 | 1.25 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 550T150-27 | 5.5 | 1.5 | 0.0796 | 27 | 0.0283 | 0.0269 |
| 550T150-30 | 5.5 | 1.5 | 0.0781 | 30 | 0.0312 | 0.0296 |
| 550T150-33 | 5.5 | 1.5 | 0.0764 | 33 | 0.0346 | 0.0329 |
| 550T150-43 | 5.5 | 1.5 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 550T150-54 | 5.5 | 1.5 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 550T150-68 | 5.5 | 1.5 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 550T150-97 | 5.5 | 1.5 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 550T150-118 | 5.5 | 1.5 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 550T200-33 | 5.5 | 2 | 0.0764 | 33 | 0.0346 | 0.0329 |
| 550T200-43 | 5.5 | 2 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 550T200-54 | 5.5 | 2 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 550T200-68 | 5.5 | 2 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 550T200-97 | 5.5 | 2 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 550T200-118 | 5.5 | 2 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 550T250-43 | 5.5 | 2.5 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 550T250-54 | 5.5 | 2.5 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 550T250-68 | 5.5 | 2.5 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 550T250-97 | 5.5 | 2.5 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 550T250-118 | 5.5 | 2.5 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 550T300-54 | 5.5 | 3 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 550T300-68 | 5.5 | 3 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 550T300-97 | 5.5 | 3 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 550T300-118 | 5.5 | 3 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 550T400-68 | 5.5 | 4 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 550T400-97 | 5.5 | 4 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 550T400-118 | 5.5 | 4 | 0.1863 | 118 | 0.1242 | 0.1180 |
| 600T125-27[4] | 6 | 1.25 | 0.0796 | 27 | 0.0283 | 0.0269 |
| 600T125-30 | 6 | 1.25 | 0.0781 | 30 | 0.0312 | 0.0296 |
| 600T125-33 | 6 | 1.25 | 0.0764 | 33 | 0.0346 | 0.0329 |
| 600T125-43 | 6 | 1.25 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 600T125-54 | 6 | 1.25 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 600T125-68 | 6 | 1.25 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 600T125-97 | 6 | 1.25 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 600T125-118 | 6 | 1.25 | 0.1863 | 118 | 0.1242 | 0.118 |
| 600T150-27[4] | 6 | 1.5 | 0.0796 | 27 | 0.0283 | 0.0269 |
| 600T150-30 | 6 | 1.5 | 0.0781 | 30 | 0.0312 | 0.0296 |
| 600T150-33 | 6 | 1.5 | 0.0764 | 33 | 0.0346 | 0.0329 |
| 600T150-43 | 6 | 1.5 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 600T150-54 | 6 | 1.5 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 600T150-68 | 6 | 1.5 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 600T150-97 | 6 | 1.5 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 600T150-118 | 6 | 1.5 | 0.1863 | 118 | 0.1242 | 0.118 |
| 600T200-33 | 6 | 2 | 0.0764 | 33 | 0.0346 | 0.0329 |
| 600T200-43 | 6 | 2 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 600T200-54 | 6 | 2 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 600T200-68 | 6 | 2 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 600T200-97 | 6 | 2 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 600T200-118 | 6 | 2 | 0.1863 | 118 | 0.1242 | 0.118 |
| 600T250-43 | 6 | 2.5 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 600T250-54 | 6 | 2.5 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 600T250-68 | 6 | 2.5 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 600T250-97 | 6 | 2.5 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 600T250-118 | 6 | 2.5 | 0.1863 | 118 | 0.1242 | 0.118 |
| 600T300-54 | 6 | 3 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 600T300-68 | 6 | 3 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 600T300-97 | 6 | 3 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 600T300-118 | 6 | 3 | 0.1863 | 118 | 0.1242 | 0.118 |
| 600T400-68 | 6 | 4 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 600T400-97 | 6 | 4 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 600T400-118 | 6 | 4 | 0.1863 | 118 | 0.1242 | 0.118 |
| 725T125-27[4] | 7.25 | 1.25 | 0.0796 | 27 | 0.0283 | 0.0269 |
| 725T125-30[1] | 7.25 | 1.25 | 0.0781 | 30 | 0.0312 | 0.0296 |
| 725T125-33[1] | 7.25 | 1.25 | 0.0764 | 33 | 0.0346 | 0.0329 |
| 725T125-43 | 7.25 | 1.25 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 725T125-54 | 7.25 | 1.25 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 725T125-68 | 7.25 | 1.25 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 725T125-97 | 7.25 | 1.25 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 725T125-118 | 7.25 | 1.25 | 0.1863 | 118 | 0.1242 | 0.118 |
| 725T150-27[4] | 7.25 | 1.5 | 0.0796 | 27 | 0.0283 | 0.0269 |
| 725T150-30[4] | 7.25 | 1.5 | 0.0781 | 30 | 0.0312 | 0.0296 |
| 725T150-33[4] | 7.25 | 1.5 | 0.0764 | 33 | 0.0346 | 0.0329 |
| 725T150-43 | 7.25 | 1.5 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 725T150-54 | 7.25 | 1.5 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 725T150-68 | 7.25 | 1.5 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 725T150-97 | 7.25 | 1.5 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 725T150-118 | 7.25 | 1.5 | 0.1863 | 118 | 0.1242 | 0.118 |
| 725T200-33[4] | 7.25 | 2 | 0.0764 | 33 | 0.0346 | 0.0329 |
| 725T200-43 | 7.25 | 2 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 725T200-54 | 7.25 | 2 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 725T200-68 | 7.25 | 2 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 725T200-97 | 7.25 | 2 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 725T200-118 | 7.25 | 2 | 0.1863 | 118 | 0.1242 | 0.118 |
| 725T250-43 | 7.25 | 2.5 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 725T250-54 | 7.25 | 2.5 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 725T250-68 | 7.25 | 2.5 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 725T250-97 | 7.25 | 2.5 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 725T250-118 | 7.25 | 2.5 | 0.1863 | 118 | 0.1242 | 0.118 |
| 725T300-54 | 7.25 | 3 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 725T300-68 | 7.25 | 3 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 725T300-97 | 7.25 | 3 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 725T300-118 | 7.25 | 3 | 0.1863 | 118 | 0.1242 | 0.118 |
| 725T400-68 | 7.25 | 4 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 725T400-97 | 7.25 | 4 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 725T400-118 | 7.25 | 4 | 0.1863 | 118 | 0.1242 | 0.118 |
| 800T125-30[4] | 8 | 1.25 | 0.0781 | 30 | 0.0312 | 0.0296 |
| 800T125-33[4] | 8 | 1.25 | 0.0764 | 33 | 0.0346 | 0.0329 |
| 800T125-43 | 8 | 1.25 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 800T125-54 | 8 | 1.25 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 800T125-68 | 8 | 1.25 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 800T125-97 | 8 | 1.25 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 800T125-118 | 8 | 1.25 | 0.1863 | 118 | 0.1242 | 0.118 |
| 800T150-30[4] | 8 | 1.5 | 0.0781 | 30 | 0.0312 | 0.0296 |
| 800T150-33[4] | 8 | 1.5 | 0.0764 | 33 | 0.0346 | 0.0329 |
| 800T150-43 | 8 | 1.5 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 800T150-54 | 8 | 1.5 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 800T150-68 | 8 | 1.5 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 800T150-97 | 8 | 1.5 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 800T150-118 | 8 | 1.5 | 0.1863 | 118 | 0.1242 | 0.118 |
| 800T200-33[4] | 8 | 2 | 0.0764 | 33 | 0.0346 | 0.0329 |
| 800T200-43 | 8 | 2 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 800T200-54 | 8 | 2 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 800T200-68 | 8 | 2 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 800T200-97 | 8 | 2 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 800T200-118 | 8 | 2 | 0.1863 | 118 | 0.1242 | 0.118 |
| 800T250-43 | 8 | 2.5 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 800T250-54 | 8 | 2.5 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 800T250-68 | 8 | 2.5 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 800T250-97 | 8 | 2.5 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 800T250-118 | 8 | 2.5 | 0.1863 | 118 | 0.1242 | 0.118 |
| 800T300-54 | 8 | 3 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 800T300-68 | 8 | 3 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 800T300-97 | 8 | 3 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 800T300-118 | 8 | 3 | 0.1863 | 118 | 0.1242 | 0.118 |
| 800T400-68 | 8 | 4 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 800T400-97 | 8 | 4 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 800T400-118 | 8 | 4 | 0.1863 | 118 | 0.1242 | 0.118 |
| 925T125-43[4] | 9.25 | 1.25 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 925T125-54 | 9.25 | 1.25 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 925T125-68 | 9.25 | 1.25 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 925T125-97 | 9.25 | 1.25 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 925T125-118 | 9.25 | 1.25 | 0.1863 | 118 | 0.1242 | 0.118 |
| 925T150-43[4] | 9.25 | 1.5 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 925T150-54 | 9.25 | 1.5 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 925T150-68 | 9.25 | 1.5 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 925T150-97 | 9.25 | 1.5 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 925T150-118 | 9.25 | 1.5 | 0.1863 | 118 | 0.1242 | 0.118 |
| 925T200-43[4] | 9.25 | 2 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 925T200-54 | 9.25 | 2 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 925T200-68 | 9.25 | 2 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 925T200-97 | 9.25 | 2 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 925T200-118 | 9.25 | 2 | 0.1863 | 118 | 0.1242 | 0.118 |

Table 2 continued on next page.

**TABLE 2—CHANNEL (TRACK) SECTIONS[1] (Continued)**

| SECTION | DEPTH[2] (in) | FLANGE (in) | INSIDE CORNER RADII (in) | MILS | DESIGN THICK. (in) | MIN. BASE METAL THICK.[3] (in) |
|---|---|---|---|---|---|---|
| 925T250-43[4] | 9.25 | 2.5 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 925T250-54 | 9.25 | 2.5 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 925T250-68 | 9.25 | 2.5 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 925T250-97 | 9.25 | 2.5 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 925T250-118 | 9.25 | 2.5 | 0.1863 | 118 | 0.1242 | 0.118 |
| 925T300-54 | 9.25 | 3 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 925T300-68 | 9.25 | 3 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 925T300-97 | 9.25 | 3 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 925T300-118 | 9.25 | 3 | 0.1863 | 118 | 0.1242 | 0.118 |
| 925T400-68 | 9.25 | 4 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 925T400-97 | 9.25 | 4 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 925T400-118 | 9.25 | 4 | 0.1863 | 118 | 0.1242 | 0.118 |
| 1000T125-43[4] | 10 | 1.25 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 1000T125-54 | 10 | 1.25 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 1000T125-68 | 10 | 1.25 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1000T125-97 | 10 | 1.25 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1000T125-118 | 10 | 1.25 | 0.1863 | 118 | 0.1242 | 0.118 |
| 1000T150-43[4] | 10 | 1.5 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 1000T150-54 | 10 | 1.5 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 1000T150-68 | 10 | 1.5 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1000T150-97 | 10 | 1.5 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1000T150-118 | 10 | 1.5 | 0.1863 | 118 | 0.1242 | 0.118 |
| 1000T200-43[4] | 10 | 2 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 1000T200-54 | 10 | 2 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 1000T200-68 | 10 | 2 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1000T200-97 | 10 | 2 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1000T200-118 | 10 | 2 | 0.1863 | 118 | 0.1242 | 0.118 |
| 1000T250-43[4] | 10 | 2.5 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 1000T250-54 | 10 | 2.5 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 1000T250-68 | 10 | 2.5 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1000T250-97 | 10 | 2.5 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1000T250-118 | 10 | 2.5 | 0.1863 | 118 | 0.1242 | 0.118 |
| 1000T300-54 | 10 | 3 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 1000T300-68 | 10 | 3 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1000T300-97 | 10 | 3 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1000T300-118 | 10 | 3 | 0.1863 | 118 | 0.1242 | 0.118 |
| 1000T400-68 | 10 | 4 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1000T400-97 | 10 | 4 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1000T400-118 | 10 | 4 | 0.1863 | 118 | 0.1242 | 0.118 |
| 1150T125-43[4] | 11.5 | 1.25 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 1150T125-54[4] | 11.5 | 1.25 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 1150T125-68 | 11.5 | 1.25 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1150T125-97 | 11.5 | 1.25 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1150T125-118 | 11.5 | 1.25 | 0.1863 | 118 | 0.1242 | 0.118 |
| 1150T150-43[4] | 11.5 | 1.5 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 1150T150-54[4] | 11.5 | 1.5 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 1150T150-68 | 11.5 | 1.5 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1150T150-97 | 11.5 | 1.5 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1150T150-118 | 11.5 | 1.5 | 0.1863 | 118 | 0.1242 | 0.118 |
| 1150T200-43[4] | 11.5 | 2 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 1150T200-54[4] | 11.5 | 2 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 1150T200-68 | 11.5 | 2 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1150T200-97 | 11.5 | 2 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1150T200-118 | 11.5 | 2 | 0.1863 | 118 | 0.1242 | 0.118 |
| 1150T250-43[4] | 11.5 | 2.5 | 0.0712 | 43 | 0.0451 | 0.0428 |
| 1150T250-54[4] | 11.5 | 2.5 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 1150T250-68 | 11.5 | 2.5 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1150T250-97 | 11.5 | 2.5 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1150T250-118 | 11.5 | 2.5 | 0.1863 | 118 | 0.1242 | 0.118 |
| 1150T300-54[4] | 11.5 | 3 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 1150T300-68 | 11.5 | 3 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1150T300-97 | 11.5 | 3 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1150T300-118 | 11.5 | 3 | 0.1863 | 118 | 0.1242 | 0.118 |
| 1150T400-68 | 11.5 | 4 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1150T400-97 | 11.5 | 4 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1150T400-118 | 11.5 | 4 | 0.1863 | 118 | 0.1242 | 0.118 |
| 1200T125-54[4] | 12 | 1.25 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 1200T125-68 | 12 | 1.25 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1200T125-97 | 12 | 1.25 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1200T125-118 | 12 | 1.25 | 0.1863 | 118 | 0.1242 | 0.118 |
| 1200T150-54[4] | 12 | 1.5 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 1200T150-68 | 12 | 1.5 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1200T150-97 | 12 | 1.5 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1200T150-118 | 12 | 1.5 | 0.1863 | 118 | 0.1242 | 0.118 |
| 1200T200-54[4] | 12 | 2 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 1200T200-68 | 12 | 2 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1200T200-97 | 12 | 2 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1200T200-118 | 12 | 2 | 0.1863 | 118 | 0.1242 | 0.118 |
| 1200T250-54[4] | 12 | 2.5 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 1200T250-68 | 12 | 2.5 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1200T250-97 | 12 | 2.5 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1200T250-118 | 12 | 2.5 | 0.1863 | 118 | 0.1242 | 0.118 |
| 1200T300-54[4] | 12 | 3 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 1200T300-68 | 12 | 3 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1200T300-97 | 12 | 3 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1200T300-118 | 12 | 3 | 0.1863 | 118 | 0.1242 | 0.118 |
| 1200T400-68 | 12 | 4 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1200T400-97 | 12 | 4 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1200T400-118 | 12 | 4 | 0.1863 | 118 | 0.1242 | 0.118 |
| 1350T125-54[4] | 13.5 | 1.25 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 1350T125-68 | 13.5 | 1.25 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1350T125-97 | 13.5 | 1.25 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1350T125-118 | 13.5 | 1.25 | 0.1863 | 118 | 0.1242 | 0.118 |
| 1350T150-54[4] | 13.5 | 1.5 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 1350T150-68 | 13.5 | 1.5 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1350T150-97 | 13.5 | 1.5 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1350T150-118 | 13.5 | 1.5 | 0.1863 | 118 | 0.1242 | 0.118 |
| 1350T200-54[4] | 13.5 | 2 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 1350T200-68 | 13.5 | 2 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1350T200-97 | 13.5 | 2 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1350T200-118 | 13.5 | 2 | 0.1863 | 118 | 0.1242 | 0.118 |
| 1350T250-54[4] | 13.5 | 2.5 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 1350T250-68 | 13.5 | 2.5 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1350T250-97 | 13.5 | 2.5 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1350T250-118 | 13.5 | 2.5 | 0.1863 | 118 | 0.1242 | 0.118 |
| 1350T300-54[4] | 13.5 | 3 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 1350T300-68 | 13.5 | 3 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1350T300-97 | 13.5 | 3 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1350T300-118 | 13.5 | 3 | 0.1863 | 118 | 0.1242 | 0.118 |
| 1350T400-68 | 13.5 | 4 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1350T400-97 | 13.5 | 4 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1350T400-118 | 13.5 | 4 | 0.1863 | 118 | 0.1242 | 0.118 |
| 1400T125-54[4] | 14 | 1.25 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 1400T125-68 | 14 | 1.25 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1400T125-97 | 14 | 1.25 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1400T125-118 | 14 | 1.25 | 0.1863 | 118 | 0.1242 | 0.118 |
| 1400T150-54[4] | 14 | 1.5 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 1400T150-68 | 14 | 1.5 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1400T150-97 | 14 | 1.5 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1400T150-118 | 14 | 1.5 | 0.1863 | 118 | 0.1242 | 0.118 |
| 1400T200-54[4] | 14 | 2 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 1400T200-68 | 14 | 2 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1400T200-97 | 14 | 2 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1400T200-118 | 14 | 2 | 0.1863 | 118 | 0.1242 | 0.118 |
| 1400T250-54[4] | 14 | 2.5 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 1400T250-68 | 14 | 2.5 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1400T250-97 | 14 | 2.5 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1400T250-118 | 14 | 2.5 | 0.1863 | 118 | 0.1242 | 0.118 |
| 1400T300-54[4] | 14 | 3 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 1400T300-68 | 14 | 3 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1400T300-97 | 14 | 3 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1400T300-118 | 14 | 3 | 0.1863 | 118 | 0.1242 | 0.118 |
| 1400T400-68 | 14 | 4 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1400T400-97 | 14 | 4 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1400T400-118 | 14 | 4 | 0.1863 | 118 | 0.1242 | 0.118 |
| 1600T125-54[4] | 16 | 1.25 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 1600T125-68[4] | 16 | 1.25 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1600T125-97 | 16 | 1.25 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1600T125-118 | 16 | 1.25 | 0.1863 | 118 | 0.1242 | 0.118 |
| 1600T150-54[4] | 16 | 1.5 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 1600T150-68[4] | 16 | 1.5 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1600T150-97 | 16 | 1.5 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1600T150-118 | 16 | 1.5 | 0.1863 | 118 | 0.1242 | 0.118 |
| 1600T200-54[4] | 16 | 2 | 0.0849 | 54 | 0.0566 | 0.0538 |
| 1600T200-68[4] | 16 | 2 | 0.1069 | 68 | 0.0713 | 0.0677 |
| 1600T200-97 | 16 | 2 | 0.1525 | 97 | 0.1017 | 0.0966 |
| 1600T200-118 | 16 | 2 | 0.1863 | 118 | 0.1242 | 0.118 |

For **SI:** 1 inch = 25.4 mm.

[1] See Table 4 for member properties. See Figure 1 for illustration of member cross section.

[2] Depth measured from inside face to inside face of flanges.

[3] Base metal thickness of members, exclusive of coatings, delivered to the jobsite must be a minimum of 95 percent of the design thickness.

[4] Web height-to-thickness ratio, h/t, exceeds 200. Web must have bearing stiffeners in accordance with AISI S100.

**TABLE 3—C-SECTION (STUD) SECTION PROPERTIES[2,3,4,5]**

| Section | Fy (ksi) | Gross Properties | | | | | | | Effective Properties | | | | | | Torsional Properties | | | | | | Lu (in) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Area | W | Ixx | Sxx | Rx | Iyy | Ry | Ixx | Sxx | Ma-L | Ma-D | Vag | VaNet | Jx1000 | Cw | Xo | m | Ro | β | |
| | | ($in^2$) | (lb/ft) | ($in^4$) | ($in^3$) | (in) | ($in^4$) | (in) | ($in^4$) | ($in^3$) | (in-k) | (in-k) | (lb) | (lb) | ($in^4$) | ($in^6$) | (in) | (in) | (in) | | |
| 162S125-18 | 33 | 0.080 | 0.27 | 0.038 | 0.046 | 0.686 | 0.016 | 0.447 | 0.034 | 0.031 | 0.61 | 0.59 | 302 | 100 | 0.009 | 0.009 | -1.029 | 0.594 | 1.315 | 0.388 | 29.0 |
| 162S125-27 | 33 | 0.120 | 0.41 | 0.056 | 0.068 | 0.682 | 0.023 | 0.443 | 0.055 | 0.053 | 1.05 | 1.00 | 494 | 106 | 0.032 | 0.013 | -1.017 | 0.587 | 1.302 | 0.390 | 29.1 |
| 162S125-30 | 33 | 0.131 | 0.45 | 0.061 | 0.075 | 0.681 | 0.026 | 0.441 | 0.060 | 0.060 | 1.19 | 1.14 | 543 | 106 | 0.043 | 0.014 | -1.014 | 0.585 | 1.298 | 0.390 | 29.2 |
| 162S125-33 | 33 | 0.145 | 0.49 | 0.067 | 0.083 | 0.679 | 0.028 | 0.440 | 0.066 | 0.069 | 1.37 | 1.30 | 601 | 105 | 0.058 | 0.016 | -1.010 | 0.583 | 1.294 | 0.391 | 29.2 |
| 250S125-18 | 33 | 0.097 | 0.33 | 0.099 | 0.079 | 1.014 | 0.019 | 0.439 | 0.089 | 0.059 | 1.17 | 0.93 | 258 | 196 | 0.011 | 0.023 | -0.904 | 0.543 | 1.427 | 0.599 | 29.0 |
| 250S125-27 | 33 | 0.144 | 0.49 | 0.147 | 0.118 | 1.009 | 0.027 | 0.434 | 0.144 | 0.097 | 1.92 | 1.63 | 685 | 344 | 0.039 | 0.034 | -0.893 | 0.536 | 1.416 | 0.602 | 28.9 |
| 250S125-30 | 33 | 0.159 | 0.54 | 0.161 | 0.129 | 1.008 | 0.030 | 0.433 | 0.159 | 0.110 | 2.17 | 1.86 | 832 | 378 | 0.052 | 0.037 | -0.889 | 0.534 | 1.412 | 0.603 | 28.9 |
| 250S125-33 | 33 | 0.176 | 0.60 | 0.178 | 0.142 | 1.006 | 0.033 | 0.431 | 0.175 | 0.125 | 2.48 | 2.14 | 975 | 399 | 0.070 | 0.040 | -0.885 | 0.532 | 1.408 | 0.605 | 28.9 |
| 250S125-43 | 33 | 0.227 | 0.77 | 0.228 | 0.182 | 1.001 | 0.041 | 0.426 | 0.225 | 0.177 | 3.49 | 3.04 | 1265 | 394 | 0.154 | 0.050 | -0.873 | 0.525 | 1.396 | 0.608 | 28.9 |
| 250S125-54 | 33 | 0.280 | 0.95 | 0.277 | 0.222 | 0.994 | 0.049 | 0.419 | 0.277 | 0.218 | 4.30 | 4.05 | 1553 | 373 | 0.299 | 0.060 | -0.859 | 0.518 | 1.379 | 0.612 | 29.0 |
| 250S125-54 | 50 | 0.280 | 0.95 | 0.277 | 0.222 | 0.994 | 0.049 | 0.419 | 0.274 | 0.209 | 6.25 | 5.35 | 2353 | 565 | 0.299 | 0.060 | -0.859 | 0.518 | 1.379 | 0.612 | 23.3 |
| 250S125-68 | 33 | 0.345 | 1.18 | 0.334 | 0.267 | 0.984 | 0.057 | 0.408 | 0.334 | 0.266 | 5.26 | 5.24 | 1891 | 342 | 0.585 | 0.072 | -0.839 | 0.508 | 1.356 | 0.617 | 29.3 |
| 250S125-68 | 50 | 0.345 | 1.18 | 0.334 | 0.267 | 0.984 | 0.057 | 0.408 | 0.334 | 0.262 | 7.84 | 7.17 | 2866 | 519 | 0.585 | 0.072 | -0.839 | 0.508 | 1.356 | 0.617 | 23.3 |
| 250S137-33 | 33 | 0.197 | 0.67 | 0.203 | 0.163 | 1.015 | 0.052 | 0.515 | 0.203 | 0.158 | 3.11 | 2.92 | 975 | 399 | 0.079 | 0.076 | -1.141 | 0.677 | 1.612 | 0.499 | 35.6 |
| 250S137-43 | 33 | 0.255 | 0.87 | 0.261 | 0.208 | 1.010 | 0.067 | 0.511 | 0.261 | 0.208 | 4.12 | 4.05 | 1265 | 394 | 0.173 | 0.096 | -1.129 | 0.670 | 1.599 | 0.501 | 35.6 |
| 250S137-54 | 33 | 0.316 | 1.07 | 0.318 | 0.255 | 1.004 | 0.080 | 0.504 | 0.318 | 0.255 | 5.03 | 5.00 | 1553 | 373 | 0.337 | 0.115 | -1.115 | 0.663 | 1.583 | 0.504 | 35.8 |
| 250S137-54 | 50 | 0.316 | 1.07 | 0.318 | 0.255 | 1.004 | 0.080 | 0.504 | 0.318 | 0.247 | 7.41 | 7.14 | 2353 | 565 | 0.337 | 0.115 | -1.115 | 0.663 | 1.583 | 0.504 | 28.8 |
| 250S137-68 | 33 | 0.390 | 1.33 | 0.386 | 0.309 | 0.994 | 0.095 | 0.495 | 0.386 | 0.309 | 6.10 | 6.06 | 1891 | 342 | 0.661 | 0.138 | -1.096 | 0.653 | 1.561 | 0.507 | 36.3 |
| 250S137-68 | 50 | 0.390 | 1.33 | 0.386 | 0.309 | 0.994 | 0.095 | 0.495 | 0.386 | 0.309 | 9.24 | 9.16 | 2866 | 519 | 0.661 | 0.138 | -1.096 | 0.653 | 1.561 | 0.507 | 28.9 |
| 250S137-97 | 33 | 0.533 | 1.81 | 0.506 | 0.405 | 0.975 | 0.120 | 0.475 | 0.506 | 0.405 | 8.01 | 7.95 | 2506 | 283 | 1.839 | 0.176 | -1.057 | 0.633 | 1.514 | 0.513 | 37.8 |
| 250S137-97 | 50 | 0.533 | 1.81 | 0.506 | 0.405 | 0.975 | 0.120 | 0.475 | 0.506 | 0.405 | 12.13 | 12.05 | 3798 | 429 | 1.839 | 0.176 | -1.057 | 0.633 | 1.514 | 0.513 | 29.6 |
| 250S162-33 | 33 | 0.223 | 0.76 | 0.235 | 0.188 | 1.027 | 0.087 | 0.624 | 0.235 | 0.180 | 3.55 | 3.42 | 975 | 399 | 0.089 | 0.146 | -1.470 | 0.859 | 1.898 | 0.401 | 44.1 |
| 250S162-43 | 33 | 0.289 | 0.98 | 0.302 | 0.242 | 1.022 | 0.111 | 0.620 | 0.302 | 0.242 | 4.77 | 4.72 | 1265 | 394 | 0.196 | 0.184 | -1.457 | 0.852 | 1.885 | 0.402 | 44.2 |
| 250S162-54 | 33 | 0.358 | 1.22 | 0.370 | 0.296 | 1.016 | 0.135 | 0.613 | 0.370 | 0.296 | 5.84 | 5.81 | 1553 | 373 | 0.383 | 0.223 | -1.443 | 0.845 | 1.868 | 0.403 | 44.5 |
| 250S162-54 | 50 | 0.358 | 1.22 | 0.370 | 0.296 | 1.016 | 0.135 | 0.613 | 0.370 | 0.288 | 8.62 | 8.35 | 2353 | 565 | 0.383 | 0.223 | -1.443 | 0.845 | 1.868 | 0.403 | 35.8 |
| 250S162-68 | 33 | 0.443 | 1.51 | 0.450 | 0.360 | 1.007 | 0.162 | 0.605 | 0.450 | 0.360 | 7.11 | 7.08 | 1891 | 342 | 0.752 | 0.268 | -1.424 | 0.835 | 1.846 | 0.405 | 45.1 |
| 250S162-68 | 50 | 0.443 | 1.51 | 0.450 | 0.360 | 1.007 | 0.162 | 0.605 | 0.450 | 0.360 | 10.78 | 10.71 | 2866 | 519 | 0.752 | 0.268 | -1.424 | 0.835 | 1.846 | 0.405 | 36.0 |
| 250S162-97 | 33 | 0.610 | 2.07 | 0.596 | 0.477 | 0.989 | 0.209 | 0.586 | 0.596 | 0.477 | 9.43 | 9.37 | 2506 | 283 | 2.102 | 0.346 | -1.386 | 0.815 | 1.801 | 0.408 | 47.0 |
| 250S162-97 | 50 | 0.610 | 2.07 | 0.596 | 0.477 | 0.989 | 0.209 | 0.586 | 0.596 | 0.477 | 14.29 | 14.20 | 3798 | 429 | 2.102 | 0.346 | -1.386 | 0.815 | 1.801 | 0.408 | 36.9 |
| 250S200-33 | 33 | 0.258 | 0.88 | 0.279 | 0.223 | 1.040 | 0.154 | 0.773 | 0.276 | 0.197 | 3.90 | 3.96 | 975 | 399 | 0.103 | 0.302 | -1.926 | 1.108 | 2.321 | 0.312 | 56.0 |
| 250S200-43 | 33 | 0.334 | 1.14 | 0.358 | 0.287 | 1.036 | 0.198 | 0.769 | 0.358 | 0.278 | 5.49 | 5.50 | 1265 | 394 | 0.227 | 0.382 | -1.914 | 1.101 | 2.308 | 0.312 | 56.1 |
| 250S200-54 | 33 | 0.415 | 1.41 | 0.440 | 0.352 | 1.030 | 0.241 | 0.763 | 0.440 | 0.352 | 6.95 | 6.92 | 1553 | 373 | 0.443 | 0.464 | -1.899 | 1.093 | 2.291 | 0.313 | 56.5 |
| 250S200-54 | 50 | 0.415 | 1.41 | 0.440 | 0.352 | 1.030 | 0.241 | 0.763 | 0.440 | 0.321 | 9.60 | 9.70 | 2353 | 565 | 0.443 | 0.464 | -1.899 | 1.093 | 2.291 | 0.313 | 45.5 |
| 250S200-68 | 33 | 0.515 | 1.75 | 0.537 | 0.430 | 1.022 | 0.293 | 0.754 | 0.537 | 0.430 | 8.50 | 8.46 | 1891 | 342 | 0.872 | 0.561 | -1.881 | 1.084 | 2.270 | 0.313 | 57.3 |
| 250S200-68 | 50 | 0.515 | 1.75 | 0.537 | 0.430 | 1.022 | 0.293 | 0.754 | 0.537 | 0.423 | 12.65 | 12.69 | 2866 | 519 | 0.872 | 0.561 | -1.881 | 1.084 | 2.270 | 0.313 | 45.8 |
| 250S200-97 | 33 | 0.711 | 2.42 | 0.718 | 0.575 | 1.005 | 0.386 | 0.736 | 0.718 | 0.575 | 11.35 | 11.30 | 2506 | 283 | 2.452 | 0.735 | -1.843 | 1.063 | 2.224 | 0.314 | 59.6 |
| 250S200-97 | 50 | 0.711 | 2.42 | 0.718 | 0.575 | 1.005 | 0.386 | 0.736 | 0.718 | 0.575 | 17.20 | 17.12 | 3798 | 429 | 2.452 | 0.735 | -1.843 | 1.063 | 2.224 | 0.314 | 46.9 |
| 250S250-43 | 33 | 0.379 | 1.29 | 0.426 | 0.341 | 1.060 | 0.336 | 0.941 | 0.426 | 0.297 | 5.87 | 6.03 | 1265 | 394 | 0.257 | 0.638 | -2.404 | 1.359 | 2.791 | 0.258 | 66.8 |
| 250S250-54 | 33 | 0.471 | 1.60 | 0.524 | 0.419 | 1.055 | 0.412 | 0.935 | 0.524 | 0.379 | 7.49 | 7.95 | 1553 | 373 | 0.503 | 0.778 | -2.389 | 1.351 | 2.774 | 0.258 | 67.3 |
| 250S250-54 | 50 | 0.471 | 1.60 | 0.524 | 0.419 | 1.055 | 0.412 | 0.935 | 0.521 | 0.341 | 10.22 | 10.58 | 2353 | 565 | 0.503 | 0.778 | -2.389 | 1.351 | 2.774 | 0.258 | 54.1 |
| 250S250-68 | 33 | 0.586 | 1.99 | 0.643 | 0.514 | 1.047 | 0.503 | 0.926 | 0.643 | 0.500 | 9.88 | 10.12 | 1891 | 342 | 0.993 | 0.944 | -2.371 | 1.341 | 2.752 | 0.258 | 68.1 |
| 250S250-68 | 50 | 0.586 | 1.99 | 0.643 | 0.514 | 1.047 | 0.503 | 0.926 | 0.643 | 0.446 | 13.35 | 14.00 | 2866 | 519 | 0.993 | 0.944 | -2.371 | 1.341 | 2.752 | 0.258 | 54.5 |
| 250S250-97 | 33 | 0.813 | 2.77 | 0.864 | 0.692 | 1.031 | 0.670 | 0.908 | 0.864 | 0.692 | 13.66 | 13.61 | 2506 | 283 | 2.803 | 1.245 | -2.332 | 1.320 | 2.707 | 0.258 | 70.9 |
| 250S250-97 | 50 | 0.813 | 2.77 | 0.864 | 0.692 | 1.031 | 0.670 | 0.908 | 0.864 | 0.669 | 20.02 | 20.62 | 3798 | 429 | 2.803 | 1.245 | -2.332 | 1.320 | 2.707 | 0.258 | 55.9 |
| 350S125-18 | 33 | 0.115 | 0.39 | 0.215 | 0.123 | 1.366 | 0.021 | 0.423 | 0.203 | 0.072 | 1.42 | 1.35 | 180 | 159 | 0.014 | 0.050 | -0.797 | 0.495 | 1.637 | 0.763 | 28.8 |
| 350S125-27 | 33 | 0.173 | 0.59 | 0.320 | 0.183 | 1.361 | 0.030 | 0.418 | 0.315 | 0.130 | 2.57 | 2.40 | 614 | 359 | 0.046 | 0.072 | -0.787 | 0.489 | 1.627 | 0.766 | 28.7 |
| 350S125-30 | 33 | 0.190 | 0.65 | 0.351 | 0.201 | 1.359 | 0.033 | 0.417 | 0.346 | 0.150 | 2.96 | 2.75 | 824 | 436 | 0.062 | 0.079 | -0.784 | 0.487 | 1.624 | 0.767 | 28.6 |
| 350S125-33 | 33 | 0.210 | 0.72 | 0.387 | 0.221 | 1.358 | 0.036 | 0.415 | 0.382 | 0.175 | 3.45 | 3.17 | 1024 | 487 | 0.084 | 0.087 | -0.780 | 0.485 | 1.620 | 0.768 | 28.6 |
| 350S125-43 | 33 | 0.272 | 0.93 | 0.498 | 0.284 | 1.352 | 0.046 | 0.410 | 0.495 | 0.258 | 5.10 | 4.57 | 1739 | 631 | 0.184 | 0.109 | -0.769 | 0.479 | 1.609 | 0.771 | 28.4 |
| 350S125-54 | 33 | 0.337 | 1.15 | 0.608 | 0.348 | 1.344 | 0.055 | 0.402 | 0.608 | 0.328 | 6.49 | 6.17 | 2253 | 633 | 0.360 | 0.131 | -0.755 | 0.471 | 1.593 | 0.775 | 28.4 |
| 350S125-54 | 50 | 0.337 | 1.15 | 0.608 | 0.348 | 1.344 | 0.055 | 0.402 | 0.604 | 0.308 | 9.22 | 8.12 | 3372 | 947 | 0.360 | 0.131 | -0.755 | 0.471 | 1.593 | 0.775 | 22.9 |
| 350S125-68 | 33 | 0.417 | 1.42 | 0.739 | 0.422 | 1.332 | 0.064 | 0.391 | 0.737 | 0.409 | 8.08 | 7.96 | 2774 | 592 | 0.706 | 0.156 | -0.737 | 0.462 | 1.571 | 0.780 | 28.3 |
| 350S125-68 | 50 | 0.417 | 1.42 | 0.739 | 0.422 | 1.332 | 0.064 | 0.391 | 0.737 | 0.400 | 11.97 | 11.04 | 4202 | 897 | 0.706 | 0.156 | -0.737 | 0.462 | 1.571 | 0.780 | 22.8 |
| 350S137-33 | 33 | 0.232 | 0.79 | 0.441 | 0.252 | 1.380 | 0.059 | 0.503 | 0.441 | 0.223 | 4.41 | 4.30 | 1024 | 487 | 0.093 | 0.153 | -1.016 | 0.621 | 1.786 | 0.676 | 34.8 |
| 350S137-43 | 33 | 0.300 | 1.02 | 0.568 | 0.324 | 1.375 | 0.075 | 0.498 | 0.568 | 0.307 | 6.07 | 6.05 | 1739 | 631 | 0.204 | 0.193 | -1.005 | 0.615 | 1.774 | 0.679 | 34.7 |
| 350S137-54 | 33 | 0.372 | 1.27 | 0.696 | 0.398 | 1.367 | 0.090 | 0.492 | 0.696 | 0.385 | 7.61 | 7.61 | 2253 | 633 | 0.398 | 0.233 | -0.991 | 0.607 | 1.759 | 0.683 | 34.7 |
| 350S137-54 | 50 | 0.372 | 1.27 | 0.696 | 0.398 | 1.367 | 0.090 | 0.492 | 0.696 | 0.366 | 10.95 | 10.68 | 3372 | 947 | 0.398 | 0.233 | -0.991 | 0.607 | 1.759 | 0.683 | 28.0 |
| 350S137-68 | 33 | 0.461 | 1.57 | 0.849 | 0.485 | 1.357 | 0.107 | 0.482 | 0.849 | 0.474 | 9.36 | 9.36 | 2774 | 592 | 0.782 | 0.280 | -0.973 | 0.598 | 1.738 | 0.687 | 34.7 |
| 350S137-68 | 50 | 0.461 | 1.57 | 0.849 | 0.485 | 1.357 | 0.107 | 0.482 | 0.849 | 0.472 | 14.12 | 13.84 | 4202 | 897 | 0.782 | 0.280 | -0.973 | 0.598 | 1.738 | 0.687 | 27.9 |

Table 3 continued on next page

**TABLE 3—C-SECTION (STUD) SECTION PROPERTIES[2,3,4,5]**

| Section | Fy (ksi) | Gross Properties | | | | | | | Effective Properties | | | | | | Torsional Properties | | | | | | Lu (in) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Area | W | Ixx | Sxx | Rx | Iyy | Ry | Ixx | Sxx | Ma-L | Ma-D | Vag | VaNet | Jx1000 | Cw | Xo | m | Ro | β | |
| | | ($in^2$) | (lb/ft) | ($in^4$) | ($in^3$) | (in) | ($in^4$) | (in) | ($in^4$) | ($in^3$) | (in-k) | (in-k) | (lb) | (lb) | ($in^4$) | ($in^6$) | (in) | (in) | (in) | | |
| 350S137-97 | 33 | 0.635 | 2.16 | 1.130 | 0.646 | 1.334 | 0.136 | 0.462 | 1.130 | 0.629 | 12.43 | 12.43 | 3765 | 511 | 2.189 | 0.361 | -0.935 | 0.579 | 1.693 | 0.695 | 35.2 |
| 350S137-97 | 50 | 0.635 | 2.16 | 1.130 | 0.646 | 1.334 | 0.136 | 0.462 | 1.130 | 0.629 | 18.84 | 18.84 | 5704 | 775 | 2.189 | 0.361 | -0.935 | 0.579 | 1.693 | 0.695 | 28.0 |
| 350S162-33 | 33 | 0.258 | 0.88 | 0.508 | 0.290 | 1.404 | 0.098 | 0.617 | 0.508 | 0.257 | 5.08 | 5.01 | 1024 | 487 | 0.103 | 0.277 | -1.324 | 0.796 | 2.026 | 0.573 | 42.7 |
| 350S162-43 | 33 | 0.334 | 1.14 | 0.654 | 0.374 | 1.400 | 0.125 | 0.612 | 0.654 | 0.357 | 7.05 | 7.02 | 1739 | 631 | 0.227 | 0.350 | -1.312 | 0.789 | 2.014 | 0.575 | 42.6 |
| 350S162-54 | 33 | 0.415 | 1.41 | 0.804 | 0.460 | 1.392 | 0.152 | 0.606 | 0.804 | 0.447 | 8.83 | 8.85 | 2253 | 633 | 0.443 | 0.426 | -1.298 | 0.782 | 1.998 | 0.578 | 42.7 |
| 350S162-54 | 50 | 0.415 | 1.41 | 0.804 | 0.460 | 1.392 | 0.152 | 0.606 | 0.804 | 0.426 | 12.74 | 12.41 | 3372 | 947 | 0.443 | 0.426 | -1.298 | 0.782 | 1.998 | 0.578 | 34.5 |
| 350S162-68 | 33 | 0.515 | 1.75 | 0.985 | 0.563 | 1.383 | 0.184 | 0.597 | 0.985 | 0.551 | 10.89 | 10.89 | 2774 | 592 | 0.872 | 0.514 | -1.280 | 0.772 | 1.977 | 0.581 | 42.8 |
| 350S162-68 | 50 | 0.515 | 1.75 | 0.985 | 0.563 | 1.383 | 0.184 | 0.597 | 0.985 | 0.549 | 16.44 | 16.14 | 4202 | 897 | 0.872 | 0.514 | -1.280 | 0.772 | 1.977 | 0.581 | 34.5 |
| 350S162-97 | 33 | 0.711 | 2.42 | 1.320 | 0.754 | 1.362 | 0.238 | 0.578 | 1.320 | 0.738 | 14.59 | 14.59 | 3765 | 511 | 2.452 | 0.672 | -1.242 | 0.752 | 1.932 | 0.587 | 43.5 |
| 350S162-97 | 50 | 0.711 | 2.42 | 1.320 | 0.754 | 1.362 | 0.238 | 0.578 | 1.320 | 0.738 | 22.10 | 22.10 | 5704 | 775 | 2.452 | 0.672 | -1.242 | 0.752 | 1.932 | 0.587 | 34.7 |
| 350S162-118 | 33 | 0.848 | 2.89 | 1.538 | 0.879 | 1.347 | 0.269 | 0.564 | 1.538 | 0.859 | 16.97 | 16.97 | 4425 | 455 | 4.360 | 0.769 | -1.213 | 0.738 | 1.898 | 0.591 | 44.4 |
| 350S162-118 | 50 | 0.848 | 2.89 | 1.538 | 0.879 | 1.347 | 0.269 | 0.564 | 1.538 | 0.859 | 25.71 | 25.71 | 6704 | 689 | 4.360 | 0.769 | -1.213 | 0.738 | 1.898 | 0.591 | 35.0 |
| 350S200-33 | 33 | 0.292 | 0.99 | 0.598 | 0.342 | 1.431 | 0.175 | 0.773 | 0.597 | 0.283 | 5.59 | 5.76 | 1024 | 487 | 0.117 | 0.541 | -1.760 | 1.039 | 2.396 | 0.461 | 53.7 |
| 350S200-43 | 33 | 0.379 | 1.29 | 0.771 | 0.441 | 1.426 | 0.224 | 0.768 | 0.771 | 0.410 | 8.09 | 8.09 | 1739 | 631 | 0.257 | 0.687 | -1.748 | 1.032 | 2.383 | 0.462 | 53.7 |
| 350S200-54 | 33 | 0.471 | 1.60 | 0.950 | 0.543 | 1.420 | 0.274 | 0.762 | 0.950 | 0.530 | 10.47 | 10.43 | 2253 | 633 | 0.503 | 0.838 | -1.733 | 1.024 | 2.367 | 0.464 | 53.8 |
| 350S200-54 | 50 | 0.471 | 1.60 | 0.950 | 0.543 | 1.420 | 0.274 | 0.762 | 0.950 | 0.470 | 14.07 | 14.28 | 3372 | 947 | 0.503 | 0.838 | -1.733 | 1.024 | 2.367 | 0.464 | 43.5 |
| 350S200-68 | 33 | 0.586 | 1.99 | 1.167 | 0.667 | 1.411 | 0.333 | 0.754 | 1.167 | 0.655 | 12.95 | 12.95 | 2774 | 592 | 0.993 | 1.018 | -1.715 | 1.014 | 2.345 | 0.465 | 54.1 |
| 350S200-68 | 50 | 0.586 | 1.99 | 1.167 | 0.667 | 1.411 | 0.333 | 0.754 | 1.167 | 0.638 | 19.10 | 18.91 | 4202 | 897 | 0.993 | 1.018 | -1.715 | 1.014 | 2.345 | 0.465 | 43.5 |
| 350S200-97 | 33 | 0.813 | 2.77 | 1.576 | 0.901 | 1.393 | 0.440 | 0.736 | 1.576 | 0.884 | 17.48 | 17.48 | 3765 | 511 | 2.803 | 1.347 | -1.676 | 0.994 | 2.300 | 0.469 | 55.0 |
| 350S200-97 | 50 | 0.813 | 2.77 | 1.576 | 0.901 | 1.393 | 0.440 | 0.736 | 1.576 | 0.884 | 26.48 | 26.48 | 5704 | 775 | 2.803 | 1.347 | -1.676 | 0.994 | 2.300 | 0.469 | 43.9 |
| 350S200-118 | 33 | 0.972 | 3.31 | 1.847 | 1.055 | 1.378 | 0.506 | 0.722 | 1.847 | 1.035 | 20.46 | 20.46 | 4425 | 455 | 4.998 | 1.554 | -1.648 | 0.979 | 2.266 | 0.471 | 56.1 |
| 350S200-118 | 50 | 0.972 | 3.31 | 1.847 | 1.055 | 1.378 | 0.506 | 0.722 | 1.847 | 1.035 | 31.00 | 31.00 | 6704 | 689 | 4.998 | 1.554 | -1.648 | 0.979 | 2.266 | 0.471 | 44.3 |
| 350S250-43 | 33 | 0.424 | 1.44 | 0.906 | 0.518 | 1.461 | 0.380 | 0.946 | 0.906 | 0.431 | 8.52 | 8.72 | 1739 | 631 | 0.288 | 1.151 | -2.220 | 1.286 | 2.821 | 0.381 | 64.3 |
| 350S250-54 | 33 | 0.528 | 1.80 | 1.118 | 0.639 | 1.455 | 0.467 | 0.940 | 1.118 | 0.559 | 11.04 | 11.60 | 2253 | 633 | 0.564 | 1.409 | -2.205 | 1.278 | 2.804 | 0.382 | 64.5 |
| 350S250-54 | 50 | 0.528 | 1.80 | 1.118 | 0.639 | 1.455 | 0.467 | 0.940 | 1.113 | 0.494 | 14.78 | 15.32 | 3372 | 947 | 0.564 | 1.409 | -2.205 | 1.278 | 2.804 | 0.382 | 52.1 |
| 350S250-68 | 33 | 0.657 | 2.24 | 1.376 | 0.787 | 1.447 | 0.570 | 0.931 | 1.376 | 0.747 | 14.77 | 15.11 | 2774 | 592 | 1.114 | 1.718 | -2.186 | 1.268 | 2.782 | 0.383 | 64.8 |
| 350S250-68 | 50 | 0.657 | 2.24 | 1.376 | 0.787 | 1.447 | 0.570 | 0.931 | 1.376 | 0.661 | 19.78 | 20.48 | 4202 | 897 | 1.114 | 1.718 | -2.186 | 1.268 | 2.782 | 0.383 | 52.2 |
| 350S250-97 | 33 | 0.915 | 3.11 | 1.870 | 1.069 | 1.430 | 0.762 | 0.913 | 1.870 | 1.052 | 20.79 | 20.79 | 3765 | 511 | 3.154 | 2.291 | -2.147 | 1.248 | 2.736 | 0.384 | 66.0 |
| 350S250-97 | 50 | 0.915 | 3.11 | 1.870 | 1.069 | 1.430 | 0.762 | 0.913 | 1.870 | 1.007 | 30.16 | 30.98 | 5704 | 775 | 3.154 | 2.291 | -2.147 | 1.248 | 2.736 | 0.384 | 52.7 |
| 350S250-118 | 33 | 1.096 | 3.73 | 2.201 | 1.258 | 1.417 | 0.885 | 0.899 | 2.201 | 1.238 | 24.45 | 24.45 | 4425 | 455 | 5.637 | 2.660 | -2.118 | 1.233 | 2.702 | 0.386 | 67.4 |
| 350S250-118 | 50 | 1.096 | 3.73 | 2.201 | 1.258 | 1.417 | 0.885 | 0.899 | 2.201 | 1.228 | 36.76 | 37.05 | 6704 | 689 | 5.637 | 2.660 | -2.118 | 1.233 | 2.702 | 0.386 | 53.3 |
| 350S300-54 | 33 | 0.599 | 2.04 | 1.302 | 0.744 | 1.474 | 0.769 | 1.133 | 1.302 | 0.635 | 12.54 | 13.14 | 2253 | 633 | 0.639 | 2.572 | -2.785 | 1.591 | 3.349 | 0.308 | 78.6 |
| 350S300-54 | 50 | 0.599 | 2.04 | 1.302 | 0.744 | 1.474 | 0.769 | 1.133 | 1.270 | 0.555 | 16.62 | 17.29 | 3372 | 947 | 0.639 | 2.572 | -2.785 | 1.591 | 3.349 | 0.308 | 63.5 |
| 350S300-68 | 33 | 0.747 | 2.54 | 1.606 | 0.918 | 1.467 | 0.944 | 1.125 | 1.606 | 0.826 | 16.32 | 17.42 | 2774 | 592 | 1.265 | 3.147 | -2.766 | 1.581 | 3.327 | 0.309 | 79.0 |
| 350S300-68 | 50 | 0.747 | 2.54 | 1.606 | 0.918 | 1.467 | 0.944 | 1.125 | 1.600 | 0.731 | 21.89 | 23.19 | 4202 | 897 | 1.265 | 3.147 | -2.766 | 1.581 | 3.327 | 0.309 | 63.7 |
| 350S300-97 | 33 | 1.042 | 3.55 | 2.192 | 1.253 | 1.451 | 1.275 | 1.106 | 2.192 | 1.221 | 24.13 | 24.43 | 3765 | 511 | 3.592 | 4.226 | -2.727 | 1.561 | 3.281 | 0.309 | 80.5 |
| 350S300-97 | 50 | 1.042 | 3.55 | 2.192 | 1.253 | 1.451 | 1.275 | 1.106 | 2.192 | 1.160 | 34.72 | 35.63 | 5704 | 775 | 3.592 | 4.226 | -2.727 | 1.561 | 3.281 | 0.309 | 64.3 |
| 350S300-118 | 33 | 1.252 | 4.26 | 2.590 | 1.480 | 1.438 | 1.494 | 1.093 | 2.590 | 1.460 | 28.85 | 28.85 | 4425 | 455 | 6.435 | 4.933 | -2.698 | 1.546 | 3.247 | 0.309 | 82.1 |
| 350S300-118 | 50 | 1.252 | 4.26 | 2.590 | 1.480 | 1.438 | 1.494 | 1.093 | 2.590 | 1.405 | 42.06 | 43.51 | 6704 | 689 | 6.435 | 4.933 | -2.698 | 1.546 | 3.247 | 0.309 | 65.1 |
| 350S350-54 | 33 | 0.684 | 2.33 | 1.491 | 0.852 | 1.477 | 1.224 | 1.338 | 1.462 | 0.703 | 13.89 | 15.21 | 2253 | 633 | 0.730 | 5.150 | -3.471 | 1.963 | 4.002 | 0.248 | 98.0 |
| 350S350-54 | 50 | 0.684 | 2.33 | 1.491 | 0.852 | 1.477 | 1.224 | 1.338 | 1.402 | 0.629 | 18.82 | 20.05 | 3372 | 947 | 0.730 | 5.150 | -3.471 | 1.963 | 4.002 | 0.248 | 79.3 |
| 350S350-68 | 33 | 0.853 | 2.90 | 1.843 | 1.053 | 1.470 | 1.509 | 1.330 | 1.843 | 0.964 | 19.05 | 20.15 | 2774 | 592 | 1.446 | 6.323 | -3.453 | 1.953 | 3.981 | 0.248 | 98.5 |
| 350S350-68 | 50 | 0.853 | 2.90 | 1.843 | 1.053 | 1.470 | 1.509 | 1.330 | 1.829 | 0.857 | 25.67 | 26.88 | 4202 | 897 | 1.446 | 6.323 | -3.453 | 1.953 | 3.981 | 0.248 | 79.5 |
| 350S350-97 | 33 | 1.194 | 4.06 | 2.525 | 1.443 | 1.454 | 2.057 | 1.312 | 2.525 | 1.424 | 28.14 | 28.19 | 3765 | 511 | 4.118 | 8.549 | -3.415 | 1.933 | 3.937 | 0.248 | 100.3 |
| 350S350-97 | 50 | 1.194 | 4.06 | 2.525 | 1.443 | 1.454 | 2.057 | 1.312 | 2.525 | 1.280 | 38.33 | 41.28 | 5704 | 775 | 4.118 | 8.549 | -3.415 | 1.933 | 3.937 | 0.248 | 80.3 |
| 350S350-118 | 33 | 1.438 | 4.89 | 2.991 | 1.709 | 1.442 | 2.427 | 1.299 | 2.991 | 1.689 | 33.38 | 33.38 | 4425 | 455 | 7.393 | 10.031 | -3.387 | 1.918 | 3.904 | 0.247 | 102.2 |
| 350S350-118 | 50 | 1.438 | 4.89 | 2.991 | 1.709 | 1.442 | 2.427 | 1.299 | 2.991 | 1.636 | 48.97 | 50.46 | 6704 | 689 | 7.393 | 10.031 | -3.387 | 1.918 | 3.904 | 0.247 | 81.2 |
| 362S125-18 | 33 | 0.118 | 0.40 | 0.234 | 0.129 | 1.409 | 0.021 | 0.421 | 0.221 | 0.075 | 1.48 | 1.40 | 173 | 163 | 0.014 | 0.054 | -0.786 | 0.490 | 1.667 | 0.778 | 28.8 |
| 362S125-27 | 33 | 0.176 | 0.60 | 0.347 | 0.192 | 1.404 | 0.031 | 0.416 | 0.342 | 0.135 | 2.67 | 2.49 | 592 | 370 | 0.047 | 0.079 | -0.776 | 0.484 | 1.657 | 0.781 | 28.6 |
| 362S125-30 | 33 | 0.194 | 0.66 | 0.381 | 0.210 | 1.402 | 0.033 | 0.415 | 0.376 | 0.156 | 3.08 | 2.86 | 794 | 449 | 0.063 | 0.086 | -0.773 | 0.482 | 1.654 | 0.782 | 28.6 |
| 362S125-33 | 33 | 0.215 | 0.73 | 0.421 | 0.232 | 1.400 | 0.037 | 0.413 | 0.415 | 0.182 | 3.59 | 3.30 | 1024 | 521 | 0.086 | 0.094 | -0.769 | 0.480 | 1.650 | 0.783 | 28.5 |
| 362S125-43 | 33 | 0.278 | 0.95 | 0.540 | 0.298 | 1.395 | 0.046 | 0.408 | 0.537 | 0.269 | 5.31 | 4.77 | 1739 | 676 | 0.188 | 0.118 | -0.758 | 0.473 | 1.639 | 0.786 | 28.4 |
| 362S125-54 | 33 | 0.344 | 1.17 | 0.661 | 0.365 | 1.386 | 0.055 | 0.400 | 0.661 | 0.343 | 6.78 | 6.45 | 2341 | 705 | 0.367 | 0.142 | -0.744 | 0.466 | 1.623 | 0.790 | 28.3 |
| 362S125-54 | 50 | 0.344 | 1.17 | 0.661 | 0.365 | 1.386 | 0.055 | 0.400 | 0.656 | 0.321 | 9.62 | 8.48 | 3372 | 1016 | 0.367 | 0.142 | -0.744 | 0.466 | 1.623 | 0.790 | 22.8 |
| 362S125-68 | 33 | 0.426 | 1.45 | 0.803 | 0.443 | 1.374 | 0.065 | 0.389 | 0.802 | 0.430 | 8.51 | 8.37 | 2884 | 662 | 0.721 | 0.169 | -0.726 | 0.457 | 1.602 | 0.795 | 28.2 |
| 362S125-68 | 50 | 0.426 | 1.45 | 0.803 | 0.443 | 1.374 | 0.065 | 0.389 | 0.802 | 0.418 | 12.52 | 11.55 | 4370 | 1004 | 0.721 | 0.169 | -0.726 | 0.457 | 1.602 | 0.795 | 22.7 |
| 362S137-33 | 33 | 0.236 | 0.80 | 0.479 | 0.264 | 1.424 | 0.059 | 0.501 | 0.479 | 0.232 | 4.59 | 4.48 | 1024 | 521 | 0.094 | 0.165 | -1.003 | 0.615 | 1.813 | 0.694 | 34.7 |
| 362S137-43 | 33 | 0.306 | 1.04 | 0.616 | 0.340 | 1.419 | 0.075 | 0.497 | 0.616 | 0.320 | 6.32 | 6.30 | 1739 | 676 | 0.207 | 0.208 | -0.991 | 0.608 | 1.801 | 0.697 | 34.6 |

Table 3 continued on next page

**TABLE 3—C-SECTION (STUD) SECTION PROPERTIES[2,3,4,5] (Continued)**

| Section | Fy | Gross Properties | | | | | | | Effective Properties | | | | | | Torsional Properties | | | | | | Lu |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Area | W | Ixx | Sxx | Rx | Iyy | Ry | Ixx | Sxx | Ma-L | Ma-D | Vag | VaNet | Jx1000 | Cw | Xo | m | Ro | β | |
| | (ksi) | ($in^2$) | (lb/ft) | ($in^4$) | ($in^3$) | (in) | ($in^4$) | (in) | ($in^4$) | ($in^3$) | (in-k) | (in-k) | (lb) | (lb) | ($in^4$) | ($in^6$) | (in) | (in) | (in) | | (in) |
| 362S137-54 | 33 | 0.379 | 1.29 | 0.756 | 0.417 | 1.411 | 0.091 | 0.490 | 0.756 | 0.402 | 7.94 | 7.99 | 2341 | 705 | 0.405 | 0.251 | -0.978 | 0.601 | 1.785 | 0.700 | 34.6 |
| 362S137-54 | 50 | 0.379 | 1.29 | 0.756 | 0.417 | 1.411 | 0.091 | 0.490 | 0.756 | 0.381 | 11.42 | 11.14 | 3372 | 1016 | 0.405 | 0.251 | -0.978 | 0.601 | 1.785 | 0.700 | 27.9 |
| 362S137-68 | 33 | 0.470 | 1.60 | 0.922 | 0.509 | 1.401 | 0.109 | 0.480 | 0.922 | 0.498 | 9.84 | 9.84 | 2884 | 662 | 0.797 | 0.302 | -0.959 | 0.592 | 1.764 | 0.704 | 34.6 |
| 362S137-68 | 50 | 0.470 | 1.60 | 0.922 | 0.509 | 1.401 | 0.109 | 0.480 | 0.922 | 0.493 | 14.77 | 14.54 | 4370 | 1004 | 0.797 | 0.302 | -0.959 | 0.592 | 1.764 | 0.704 | 27.8 |
| 362S137-97 | 33 | 0.648 | 2.20 | 1.229 | 0.678 | 1.377 | 0.137 | 0.460 | 1.229 | 0.662 | 13.09 | 13.09 | 3922 | 577 | 2.233 | 0.390 | -0.922 | 0.573 | 1.720 | 0.713 | 35.0 |
| 362S137-97 | 50 | 0.648 | 2.20 | 1.229 | 0.678 | 1.377 | 0.137 | 0.460 | 1.229 | 0.662 | 19.83 | 19.83 | 5943 | 875 | 2.233 | 0.390 | -0.922 | 0.573 | 1.720 | 0.713 | 27.8 |
| 362S162-33 | 33 | 0.262 | 0.89 | 0.551 | 0.304 | 1.450 | 0.099 | 0.616 | 0.551 | 0.268 | 5.29 | 5.21 | 1024 | 521 | 0.105 | 0.297 | -1.308 | 0.789 | 2.048 | 0.592 | 42.6 |
| 362S162-43 | 33 | 0.340 | 1.16 | 0.710 | 0.392 | 1.445 | 0.127 | 0.611 | 0.710 | 0.372 | 7.34 | 7.32 | 1739 | 676 | 0.230 | 0.376 | -1.297 | 0.782 | 2.036 | 0.594 | 42.5 |
| 362S162-54 | 33 | 0.422 | 1.44 | 0.873 | 0.481 | 1.438 | 0.154 | 0.604 | 0.873 | 0.466 | 9.22 | 9.28 | 2341 | 705 | 0.451 | 0.457 | -1.283 | 0.774 | 2.020 | 0.597 | 42.5 |
| 362S162-54 | 50 | 0.422 | 1.44 | 0.873 | 0.481 | 1.438 | 0.154 | 0.604 | 0.873 | 0.444 | 13.28 | 12.93 | 3372 | 1016 | 0.451 | 0.457 | -1.283 | 0.774 | 2.020 | 0.597 | 34.4 |
| 362S162-68 | 33 | 0.524 | 1.78 | 1.069 | 0.590 | 1.429 | 0.186 | 0.596 | 1.069 | 0.579 | 11.43 | 11.43 | 2884 | 662 | 0.887 | 0.552 | -1.264 | 0.765 | 1.998 | 0.600 | 42.7 |
| 362S162-68 | 50 | 0.524 | 1.78 | 1.069 | 0.590 | 1.429 | 0.186 | 0.596 | 1.069 | 0.574 | 17.18 | 16.94 | 4370 | 1004 | 0.887 | 0.552 | -1.264 | 0.765 | 1.998 | 0.600 | 34.3 |
| 362S162-97 | 33 | 0.724 | 2.46 | 1.435 | 0.792 | 1.408 | 0.241 | 0.577 | 1.435 | 0.776 | 15.33 | 15.33 | 3922 | 577 | 2.496 | 0.723 | -1.226 | 0.745 | 1.954 | 0.606 | 43.3 |
| 362S162-97 | 50 | 0.724 | 2.46 | 1.435 | 0.792 | 1.408 | 0.241 | 0.577 | 1.435 | 0.776 | 23.23 | 23.23 | 5943 | 875 | 2.496 | 0.723 | -1.226 | 0.745 | 1.954 | 0.606 | 34.5 |
| 362S162-118 | 33 | 0.863 | 2.94 | 1.672 | 0.923 | 1.392 | 0.273 | 0.562 | 1.672 | 0.903 | 17.85 | 17.85 | 4617 | 518 | 4.440 | 0.827 | -1.198 | 0.731 | 1.920 | 0.611 | 44.0 |
| 362S162-118 | 50 | 0.863 | 2.94 | 1.672 | 0.923 | 1.392 | 0.273 | 0.562 | 1.672 | 0.903 | 27.05 | 27.05 | 6996 | 784 | 4.440 | 0.827 | -1.198 | 0.731 | 1.920 | 0.611 | 34.7 |
| 362S200-33 | 33 | 0.297 | 1.01 | 0.648 | 0.358 | 1.478 | 0.177 | 0.772 | 0.647 | 0.294 | 5.81 | 5.99 | 1024 | 521 | 0.118 | 0.577 | -1.741 | 1.030 | 2.411 | 0.478 | 53.6 |
| 362S200-43 | 33 | 0.385 | 1.31 | 0.836 | 0.461 | 1.474 | 0.227 | 0.767 | 0.836 | 0.427 | 8.43 | 8.42 | 1739 | 676 | 0.261 | 0.734 | -1.729 | 1.024 | 2.398 | 0.480 | 53.5 |
| 362S200-54 | 33 | 0.479 | 1.63 | 1.030 | 0.568 | 1.467 | 0.277 | 0.761 | 1.030 | 0.553 | 10.93 | 10.92 | 2341 | 705 | 0.511 | 0.896 | -1.715 | 1.016 | 2.382 | 0.482 | 53.6 |
| 362S200-54 | 50 | 0.479 | 1.63 | 1.030 | 0.568 | 1.467 | 0.277 | 0.761 | 1.030 | 0.490 | 14.66 | 14.87 | 3372 | 1016 | 0.511 | 0.896 | -1.715 | 1.016 | 2.382 | 0.482 | 43.3 |
| 362S200-68 | 33 | 0.595 | 2.02 | 1.265 | 0.698 | 1.458 | 0.337 | 0.753 | 1.265 | 0.687 | 13.58 | 13.58 | 2884 | 662 | 1.008 | 1.089 | -1.696 | 1.006 | 2.360 | 0.484 | 53.8 |
| 362S200-68 | 50 | 0.595 | 2.02 | 1.265 | 0.698 | 1.458 | 0.337 | 0.753 | 1.265 | 0.666 | 19.95 | 19.71 | 4370 | 1004 | 1.008 | 1.089 | -1.696 | 1.006 | 2.360 | 0.484 | 43.3 |
| 362S200-97 | 33 | 0.826 | 2.81 | 1.711 | 0.944 | 1.440 | 0.446 | 0.735 | 1.711 | 0.928 | 18.34 | 18.34 | 3922 | 577 | 2.847 | 1.441 | -1.658 | 0.986 | 2.315 | 0.487 | 54.7 |
| 362S200-97 | 50 | 0.826 | 2.81 | 1.711 | 0.944 | 1.440 | 0.446 | 0.735 | 1.711 | 0.928 | 27.80 | 27.80 | 5943 | 875 | 2.847 | 1.441 | -1.658 | 0.986 | 2.315 | 0.487 | 43.6 |
| 362S200-118 | 33 | 0.988 | 3.36 | 2.006 | 1.107 | 1.425 | 0.513 | 0.721 | 2.006 | 1.088 | 21.49 | 21.49 | 4617 | 518 | 5.078 | 1.664 | -1.629 | 0.971 | 2.281 | 0.490 | 55.7 |
| 362S200-118 | 50 | 0.988 | 3.36 | 2.006 | 1.107 | 1.425 | 0.513 | 0.721 | 2.006 | 1.088 | 32.56 | 32.56 | 6996 | 784 | 5.078 | 1.664 | -1.629 | 0.971 | 2.281 | 0.490 | 44.0 |
| 362S250-43 | 33 | 0.430 | 1.46 | 0.980 | 0.541 | 1.510 | 0.385 | 0.946 | 0.980 | 0.449 | 8.88 | 9.06 | 1739 | 676 | 0.292 | 1.230 | -2.199 | 1.277 | 2.830 | 0.396 | 64.2 |
| 362S250-54 | 33 | 0.535 | 1.82 | 1.210 | 0.668 | 1.504 | 0.473 | 0.940 | 1.210 | 0.582 | 11.51 | 12.06 | 2341 | 705 | 0.571 | 1.506 | -2.184 | 1.269 | 2.813 | 0.397 | 64.3 |
| 362S250-54 | 50 | 0.535 | 1.82 | 1.210 | 0.668 | 1.504 | 0.473 | 0.940 | 1.205 | 0.514 | 15.40 | 15.92 | 3372 | 1016 | 0.571 | 1.506 | -2.184 | 1.269 | 2.813 | 0.397 | 52.0 |
| 362S250-68 | 33 | 0.666 | 2.27 | 1.490 | 0.822 | 1.496 | 0.578 | 0.931 | 1.490 | 0.782 | 15.46 | 15.80 | 2884 | 662 | 1.129 | 1.837 | -2.165 | 1.259 | 2.791 | 0.398 | 64.6 |
| 362S250-68 | 50 | 0.666 | 2.27 | 1.490 | 0.822 | 1.496 | 0.578 | 0.931 | 1.490 | 0.689 | 20.63 | 21.31 | 4370 | 1004 | 1.129 | 1.837 | -2.165 | 1.259 | 2.791 | 0.398 | 52.0 |
| 362S250-97 | 33 | 0.927 | 3.16 | 2.027 | 1.118 | 1.478 | 0.772 | 0.912 | 2.027 | 1.103 | 21.79 | 21.79 | 3922 | 577 | 3.197 | 2.452 | -2.126 | 1.239 | 2.746 | 0.400 | 65.7 |
| 362S250-97 | 50 | 0.927 | 3.16 | 2.027 | 1.118 | 1.478 | 0.772 | 0.912 | 2.027 | 1.055 | 31.59 | 32.44 | 5943 | 875 | 3.197 | 2.452 | -2.126 | 1.239 | 2.746 | 0.400 | 52.5 |
| 362S250-118 | 33 | 1.112 | 3.78 | 2.387 | 1.317 | 1.465 | 0.897 | 0.898 | 2.387 | 1.298 | 25.64 | 25.64 | 4617 | 518 | 5.717 | 2.849 | -2.097 | 1.224 | 2.711 | 0.402 | 66.9 |
| 362S250-118 | 50 | 1.112 | 3.78 | 2.387 | 1.317 | 1.465 | 0.897 | 0.898 | 2.387 | 1.287 | 38.54 | 38.85 | 6996 | 784 | 5.717 | 2.849 | -2.097 | 1.224 | 2.711 | 0.402 | 53.0 |
| 362S300-54 | 33 | 0.606 | 2.06 | 1.408 | 0.777 | 1.525 | 0.779 | 1.134 | 1.408 | 0.662 | 13.08 | 13.66 | 2341 | 705 | 0.647 | 2.736 | -2.762 | 1.582 | 3.352 | 0.321 | 78.3 |
| 362S300-54 | 50 | 0.606 | 2.06 | 1.408 | 0.777 | 1.525 | 0.779 | 1.134 | 1.374 | 0.578 | 17.31 | 17.96 | 3372 | 1016 | 0.647 | 2.736 | -2.762 | 1.582 | 3.352 | 0.321 | 63.3 |
| 362S300-68 | 33 | 0.755 | 2.57 | 1.738 | 0.959 | 1.517 | 0.956 | 1.125 | 1.738 | 0.864 | 17.06 | 18.12 | 2884 | 662 | 1.280 | 3.349 | -2.743 | 1.572 | 3.330 | 0.322 | 78.7 |
| 362S300-68 | 50 | 0.755 | 2.57 | 1.738 | 0.959 | 1.517 | 0.956 | 1.125 | 1.732 | 0.763 | 22.83 | 24.10 | 4370 | 1004 | 1.280 | 3.349 | -2.743 | 1.572 | 3.330 | 0.322 | 63.5 |
| 362S300-97 | 33 | 1.055 | 3.59 | 2.375 | 1.310 | 1.501 | 1.292 | 1.107 | 2.375 | 1.278 | 25.26 | 25.58 | 3922 | 577 | 3.636 | 4.501 | -2.704 | 1.552 | 3.285 | 0.322 | 80.0 |
| 362S300-97 | 50 | 1.055 | 3.59 | 2.375 | 1.310 | 1.501 | 1.292 | 1.107 | 2.375 | 1.213 | 36.33 | 37.10 | 5943 | 875 | 3.636 | 4.501 | -2.704 | 1.552 | 3.285 | 0.322 | 64.0 |
| 362S300-118 | 33 | 1.267 | 4.31 | 2.807 | 1.549 | 1.488 | 1.514 | 1.093 | 2.807 | 1.529 | 30.22 | 30.22 | 4617 | 518 | 6.515 | 5.258 | -2.675 | 1.537 | 3.251 | 0.323 | 81.5 |
| 362S300-118 | 50 | 1.267 | 4.31 | 2.807 | 1.549 | 1.488 | 1.514 | 1.093 | 2.807 | 1.471 | 44.04 | 45.55 | 6996 | 784 | 6.515 | 5.258 | -2.675 | 1.537 | 3.251 | 0.323 | 64.7 |
| 362S350-54 | 33 | 0.691 | 2.35 | 1.613 | 0.890 | 1.528 | 1.240 | 1.340 | 1.582 | 0.734 | 14.50 | 15.81 | 2341 | 705 | 0.738 | 5.430 | -3.447 | 1.954 | 4.001 | 0.258 | 97.4 |
| 362S350-54 | 50 | 0.691 | 2.35 | 1.613 | 0.890 | 1.528 | 1.240 | 1.340 | 1.518 | 0.655 | 19.62 | 20.82 | 3372 | 1016 | 0.738 | 5.430 | -3.447 | 1.954 | 4.001 | 0.258 | 78.8 |
| 362S350-68 | 33 | 0.862 | 2.93 | 1.995 | 1.101 | 1.521 | 1.529 | 1.332 | 1.995 | 1.009 | 19.93 | 20.97 | 2884 | 662 | 1.461 | 6.669 | -3.428 | 1.944 | 3.980 | 0.258 | 97.9 |
| 362S350-68 | 50 | 0.862 | 2.93 | 1.995 | 1.101 | 1.521 | 1.529 | 1.332 | 1.980 | 0.895 | 26.79 | 27.93 | 4370 | 1004 | 1.461 | 6.669 | -3.428 | 1.944 | 3.980 | 0.258 | 79.0 |
| 362S350-97 | 33 | 1.207 | 4.11 | 2.735 | 1.509 | 1.505 | 2.085 | 1.314 | 2.735 | 1.490 | 29.45 | 29.51 | 3922 | 577 | 4.162 | 9.022 | -3.391 | 1.924 | 3.936 | 0.258 | 99.5 |
| 362S350-97 | 50 | 1.207 | 4.11 | 2.735 | 1.509 | 1.505 | 2.085 | 1.314 | 2.735 | 1.339 | 40.10 | 42.98 | 5943 | 875 | 4.162 | 9.022 | -3.391 | 1.924 | 3.936 | 0.258 | 79.7 |
| 362S350-118 | 33 | 1.453 | 4.95 | 3.242 | 1.789 | 1.494 | 2.460 | 1.301 | 3.242 | 1.770 | 34.97 | 34.97 | 4617 | 518 | 7.473 | 10.592 | -3.363 | 1.909 | 3.903 | 0.258 | 101.3 |
| 362S350-118 | 50 | 1.453 | 4.95 | 3.242 | 1.789 | 1.494 | 2.460 | 1.301 | 3.242 | 1.712 | 51.25 | 52.81 | 6996 | 784 | 7.473 | 10.592 | -3.363 | 1.909 | 3.903 | 0.258 | 80.6 |
| 400S125-18[1] | 33 | 0.125 | 0.42 | 0.294 | 0.147 | 1.536 | 0.021 | 0.414 | 0.281 | 0.083 | 1.64 | 1.55 | 156 | 156 | 0.015 | 0.068 | -0.754 | 0.475 | 1.760 | 0.816 | 28.7 |
| 400S125-27 | 33 | 0.187 | 0.64 | 0.438 | 0.219 | 1.531 | 0.031 | 0.410 | 0.431 | 0.151 | 2.97 | 2.78 | 533 | 398 | 0.050 | 0.098 | -0.744 | 0.469 | 1.751 | 0.819 | 28.5 |
| 400S125-30 | 33 | 0.206 | 0.70 | 0.481 | 0.240 | 1.529 | 0.034 | 0.408 | 0.474 | 0.174 | 3.44 | 3.20 | 715 | 484 | 0.067 | 0.107 | -0.741 | 0.467 | 1.748 | 0.820 | 28.5 |
| 400S125-33 | 33 | 0.228 | 0.77 | 0.531 | 0.265 | 1.527 | 0.038 | 0.407 | 0.524 | 0.203 | 4.01 | 3.70 | 976 | 595 | 0.091 | 0.118 | -0.738 | 0.465 | 1.744 | 0.821 | 28.4 |
| 400S125-43 | 33 | 0.295 | 1.00 | 0.682 | 0.341 | 1.521 | 0.048 | 0.402 | 0.680 | 0.301 | 5.96 | 5.38 | 1739 | 810 | 0.200 | 0.148 | -0.727 | 0.459 | 1.733 | 0.824 | 28.2 |
| 400S125-54 | 33 | 0.365 | 1.24 | 0.835 | 0.418 | 1.512 | 0.057 | 0.394 | 0.835 | 0.387 | 7.65 | 7.29 | 2603 | 944 | 0.390 | 0.178 | -0.713 | 0.451 | 1.718 | 0.828 | 28.1 |
| 400S125-54 | 50 | 0.365 | 1.24 | 0.835 | 0.418 | 1.512 | 0.057 | 0.394 | 0.830 | 0.361 | 10.81 | 9.58 | 3372 | 1223 | 0.390 | 0.178 | -0.713 | 0.451 | 1.718 | 0.828 | 22.7 |
| 400S125-68 | 33 | 0.452 | 1.54 | 1.017 | 0.509 | 1.499 | 0.066 | 0.383 | 1.015 | 0.492 | 9.72 | 9.66 | 3215 | 895 | 0.767 | 0.213 | -0.695 | 0.442 | 1.696 | 0.832 | 28.0 |

Table 3 continued on next page

**TABLE 3—C-SECTION (STUD) SECTION PROPERTIES[2,3,4,5] (Continued)**

| Section | Fy | Gross Properties | | | | | | | Effective Properties | | | | | | Torsional Properties | | | | | | Lu |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Area | W | Ixx | Sxx | Rx | Iyy | Ry | Ixx | Sxx | Ma-L | Ma-D | Vag | VaNet | Jx1000 | Cw | Xo | m | Ro | β | |
| | (ksi) | ($in^2$) | (lb/ft) | ($in^4$) | ($in^3$) | (in) | ($in^4$) | (in) | ($in^4$) | ($in^3$) | (in-k) | (in-k) | (lb) | (lb) | ($in^4$) | ($in^6$) | (in) | (in) | (in) | | (in) |
| 400S125-68 | 50 | 0.452 | 1.54 | 1.017 | 0.509 | 1.499 | 0.066 | 0.383 | 1.015 | 0.474 | 14.18 | 13.10 | 4871 | 1356 | 0.767 | 0.213 | -0.695 | 0.442 | 1.696 | 0.832 | 22.5 |
| 400S137-33 | 33 | 0.249 | 0.85 | 0.603 | 0.301 | 1.556 | 0.061 | 0.496 | 0.603 | 0.259 | 5.12 | 5.01 | 976 | 595 | 0.099 | 0.204 | -0.965 | 0.597 | 1.897 | 0.741 | 34.5 |
| 400S137-43 | 33 | 0.323 | 1.10 | 0.776 | 0.388 | 1.551 | 0.078 | 0.491 | 0.776 | 0.359 | 7.09 | 7.08 | 1739 | 810 | 0.219 | 0.257 | -0.954 | 0.591 | 1.885 | 0.744 | 34.3 |
| 400S137-54 | 33 | 0.401 | 1.36 | 0.953 | 0.477 | 1.542 | 0.094 | 0.484 | 0.953 | 0.453 | 8.96 | 9.15 | 2603 | 944 | 0.428 | 0.311 | -0.940 | 0.583 | 1.870 | 0.747 | 34.3 |
| 400S137-54 | 50 | 0.401 | 1.36 | 0.953 | 0.477 | 1.542 | 0.094 | 0.484 | 0.953 | 0.428 | 12.82 | 12.53 | 3372 | 1223 | 0.428 | 0.311 | -0.940 | 0.583 | 1.870 | 0.747 | 27.7 |
| 400S137-68 | 33 | 0.497 | 1.69 | 1.165 | 0.582 | 1.531 | 0.112 | 0.475 | 1.165 | 0.567 | 11.21 | 11.31 | 3215 | 895 | 0.842 | 0.375 | -0.922 | 0.574 | 1.849 | 0.751 | 34.2 |
| 400S137-68 | 50 | 0.497 | 1.69 | 1.165 | 0.582 | 1.531 | 0.112 | 0.475 | 1.165 | 0.558 | 16.70 | 16.64 | 4871 | 1356 | 0.842 | 0.375 | -0.922 | 0.574 | 1.849 | 0.751 | 27.6 |
| 400S137-97 | 33 | 0.686 | 2.33 | 1.557 | 0.779 | 1.507 | 0.142 | 0.454 | 1.557 | 0.764 | 15.10 | 15.10 | 4394 | 797 | 2.365 | 0.486 | -0.885 | 0.555 | 1.806 | 0.760 | 34.4 |
| 400S137-97 | 50 | 0.686 | 2.33 | 1.557 | 0.779 | 1.507 | 0.142 | 0.454 | 1.557 | 0.764 | 22.88 | 22.88 | 6658 | 1207 | 2.365 | 0.486 | -0.885 | 0.555 | 1.806 | 0.760 | 27.5 |
| 400S162-33 | 33 | 0.275 | 0.94 | 0.692 | 0.346 | 1.586 | 0.103 | 0.611 | 0.692 | 0.299 | 5.91 | 5.83 | 976 | 595 | 0.110 | 0.363 | -1.263 | 0.768 | 2.118 | 0.644 | 42.3 |
| 400S162-43 | 33 | 0.357 | 1.21 | 0.892 | 0.446 | 1.581 | 0.131 | 0.606 | 0.892 | 0.417 | 8.23 | 8.21 | 1739 | 810 | 0.242 | 0.460 | -1.252 | 0.761 | 2.106 | 0.647 | 42.2 |
| 400S162-54 | 33 | 0.443 | 1.51 | 1.098 | 0.549 | 1.574 | 0.159 | 0.600 | 1.098 | 0.526 | 10.39 | 10.59 | 2603 | 944 | 0.473 | 0.560 | -1.238 | 0.754 | 2.090 | 0.649 | 42.2 |
| 400S162-54 | 50 | 0.443 | 1.51 | 1.098 | 0.549 | 1.574 | 0.159 | 0.600 | 1.098 | 0.498 | 14.90 | 14.52 | 3372 | 1223 | 0.473 | 0.560 | -1.238 | 0.754 | 2.090 | 0.649 | 34.1 |
| 400S162-68 | 33 | 0.550 | 1.87 | 1.346 | 0.673 | 1.564 | 0.192 | 0.591 | 1.346 | 0.658 | 13.00 | 13.10 | 3215 | 895 | 0.933 | 0.677 | -1.220 | 0.745 | 2.069 | 0.653 | 42.2 |
| 400S162-68 | 50 | 0.550 | 1.87 | 1.346 | 0.673 | 1.564 | 0.192 | 0.591 | 1.346 | 0.648 | 19.41 | 19.25 | 4871 | 1356 | 0.933 | 0.677 | -1.220 | 0.745 | 2.069 | 0.653 | 34.0 |
| 400S162-97 | 33 | 0.762 | 2.59 | 1.812 | 0.906 | 1.542 | 0.249 | 0.572 | 1.812 | 0.892 | 17.63 | 17.63 | 4394 | 797 | 2.628 | 0.889 | -1.182 | 0.725 | 2.025 | 0.659 | 42.6 |
| 400S162-97 | 50 | 0.762 | 2.59 | 1.812 | 0.906 | 1.542 | 0.249 | 0.572 | 1.812 | 0.892 | 26.70 | 26.70 | 6658 | 1207 | 2.628 | 0.889 | -1.182 | 0.725 | 2.025 | 0.659 | 34.0 |
| 400S162-118 | 33 | 0.910 | 3.10 | 2.118 | 1.059 | 1.525 | 0.282 | 0.557 | 2.118 | 1.041 | 20.58 | 20.58 | 5193 | 728 | 4.679 | 1.020 | -1.154 | 0.711 | 1.992 | 0.664 | 43.1 |
| 400S162-118 | 50 | 0.910 | 3.10 | 2.118 | 1.059 | 1.525 | 0.282 | 0.557 | 2.118 | 1.041 | 31.18 | 31.18 | 7869 | 1102 | 4.679 | 1.020 | -1.154 | 0.711 | 1.992 | 0.664 | 34.2 |
| 400S200-33 | 33 | 0.310 | 1.05 | 0.812 | 0.406 | 1.619 | 0.183 | 0.769 | 0.812 | 0.328 | 6.49 | 6.69 | 976 | 595 | 0.124 | 0.697 | -1.688 | 1.007 | 2.462 | 0.530 | 53.1 |
| 400S200-43 | 33 | 0.402 | 1.37 | 1.047 | 0.524 | 1.615 | 0.235 | 0.764 | 1.047 | 0.478 | 9.45 | 9.43 | 1739 | 810 | 0.272 | 0.886 | -1.676 | 1.000 | 2.449 | 0.532 | 53.0 |
| 400S200-54 | 33 | 0.500 | 1.70 | 1.292 | 0.646 | 1.608 | 0.287 | 0.758 | 1.292 | 0.623 | 12.30 | 12.42 | 2603 | 944 | 0.534 | 1.083 | -1.662 | 0.993 | 2.433 | 0.534 | 53.0 |
| 400S200-54 | 50 | 0.500 | 1.70 | 1.292 | 0.646 | 1.608 | 0.287 | 0.758 | 1.292 | 0.549 | 16.43 | 16.65 | 3372 | 1223 | 0.534 | 1.083 | -1.662 | 0.993 | 2.433 | 0.534 | 42.9 |
| 400S200-68 | 33 | 0.622 | 2.12 | 1.589 | 0.795 | 1.599 | 0.349 | 0.750 | 1.589 | 0.780 | 15.40 | 15.50 | 3215 | 895 | 1.054 | 1.318 | -1.643 | 0.983 | 2.412 | 0.536 | 53.2 |
| 400S200-68 | 50 | 0.622 | 2.12 | 1.589 | 0.795 | 1.599 | 0.349 | 0.750 | 1.589 | 0.751 | 22.48 | 22.15 | 4871 | 1356 | 1.054 | 1.318 | -1.643 | 0.983 | 2.412 | 0.536 | 42.9 |
| 400S200-97 | 33 | 0.864 | 2.94 | 2.155 | 1.077 | 1.579 | 0.462 | 0.731 | 2.155 | 1.063 | 21.01 | 21.01 | 4394 | 797 | 2.978 | 1.749 | -1.605 | 0.963 | 2.368 | 0.540 | 53.8 |
| 400S200-97 | 50 | 0.864 | 2.94 | 2.155 | 1.077 | 1.579 | 0.462 | 0.731 | 2.155 | 1.063 | 31.83 | 31.83 | 6658 | 1207 | 2.978 | 1.749 | -1.605 | 0.963 | 2.368 | 0.540 | 43.0 |
| 400S200-118 | 33 | 1.034 | 3.52 | 2.532 | 1.266 | 1.565 | 0.532 | 0.717 | 2.532 | 1.248 | 24.67 | 24.67 | 5193 | 728 | 5.318 | 2.024 | -1.577 | 0.948 | 2.334 | 0.544 | 54.5 |
| 400S200-118 | 50 | 1.034 | 3.52 | 2.532 | 1.266 | 1.565 | 0.532 | 0.717 | 2.532 | 1.248 | 37.37 | 37.37 | 7869 | 1102 | 5.318 | 2.024 | -1.577 | 0.948 | 2.334 | 0.544 | 43.3 |
| 400S250-43 | 33 | 0.447 | 1.52 | 1.224 | 0.612 | 1.655 | 0.399 | 0.945 | 1.224 | 0.503 | 9.93 | 10.09 | 1739 | 810 | 0.303 | 1.486 | -2.139 | 1.252 | 2.864 | 0.443 | 63.7 |
| 400S250-54 | 33 | 0.556 | 1.89 | 1.512 | 0.756 | 1.649 | 0.490 | 0.938 | 1.512 | 0.653 | 12.90 | 13.47 | 2603 | 944 | 0.594 | 1.821 | -2.124 | 1.244 | 2.848 | 0.444 | 63.8 |
| 400S250-54 | 50 | 0.556 | 1.89 | 1.512 | 0.756 | 1.649 | 0.490 | 0.938 | 1.506 | 0.576 | 17.24 | 17.75 | 3372 | 1223 | 0.594 | 1.821 | -2.124 | 1.244 | 2.848 | 0.444 | 51.6 |
| 400S250-68 | 33 | 0.693 | 2.36 | 1.864 | 0.932 | 1.640 | 0.599 | 0.929 | 1.864 | 0.883 | 17.45 | 17.86 | 3215 | 895 | 1.174 | 2.225 | -2.105 | 1.235 | 2.826 | 0.445 | 64.0 |
| 400S250-68 | 50 | 0.693 | 2.36 | 1.864 | 0.932 | 1.640 | 0.599 | 0.929 | 1.864 | 0.775 | 23.19 | 23.82 | 4871 | 1356 | 1.174 | 2.225 | -2.105 | 1.235 | 2.826 | 0.445 | 51.6 |
| 400S250-97 | 33 | 0.966 | 3.29 | 2.541 | 1.271 | 1.622 | 0.801 | 0.911 | 2.541 | 1.256 | 24.83 | 24.83 | 4394 | 797 | 3.329 | 2.978 | -2.066 | 1.214 | 2.780 | 0.448 | 64.8 |
| 400S250-97 | 50 | 0.966 | 3.29 | 2.541 | 1.271 | 1.622 | 0.801 | 0.911 | 2.541 | 1.202 | 35.98 | 36.64 | 6658 | 1207 | 3.329 | 2.978 | -2.066 | 1.214 | 2.780 | 0.448 | 51.9 |
| 400S250-118 | 33 | 1.158 | 3.94 | 2.998 | 1.499 | 1.609 | 0.931 | 0.897 | 2.998 | 1.482 | 29.28 | 29.28 | 5193 | 728 | 5.956 | 3.467 | -2.037 | 1.199 | 2.746 | 0.450 | 65.7 |
| 400S250-118 | 50 | 1.158 | 3.94 | 2.998 | 1.499 | 1.609 | 0.931 | 0.897 | 2.998 | 1.470 | 44.00 | 44.36 | 7869 | 1102 | 5.956 | 3.467 | -2.037 | 1.199 | 2.746 | 0.450 | 52.3 |
| 400S300-54 | 33 | 0.627 | 2.13 | 1.756 | 0.878 | 1.674 | 0.807 | 1.135 | 1.756 | 0.742 | 14.67 | 15.22 | 2603 | 944 | 0.670 | 3.269 | -2.695 | 1.555 | 3.369 | 0.360 | 77.5 |
| 400S300-54 | 50 | 0.627 | 2.13 | 1.756 | 0.878 | 1.674 | 0.807 | 1.135 | 1.716 | 0.648 | 19.39 | 19.97 | 3372 | 1223 | 0.670 | 3.269 | -2.695 | 1.555 | 3.369 | 0.360 | 62.7 |
| 400S300-68 | 33 | 0.782 | 2.66 | 2.170 | 1.085 | 1.666 | 0.992 | 1.126 | 2.170 | 0.974 | 19.24 | 20.25 | 3215 | 895 | 1.325 | 4.007 | -2.676 | 1.545 | 3.347 | 0.361 | 77.8 |
| 400S300-68 | 50 | 0.782 | 2.66 | 2.170 | 1.085 | 1.666 | 0.992 | 1.126 | 2.163 | 0.857 | 25.65 | 26.87 | 4871 | 1356 | 1.325 | 4.007 | -2.676 | 1.545 | 3.347 | 0.361 | 62.8 |
| 400S300-97 | 33 | 1.093 | 3.72 | 2.971 | 1.486 | 1.649 | 1.341 | 1.108 | 2.971 | 1.452 | 28.69 | 29.08 | 4394 | 797 | 3.767 | 5.398 | -2.637 | 1.525 | 3.301 | 0.362 | 78.8 |
| 400S300-97 | 50 | 1.093 | 3.72 | 2.971 | 1.486 | 1.649 | 1.341 | 1.108 | 2.971 | 1.378 | 41.25 | 41.57 | 6658 | 1207 | 3.767 | 5.398 | -2.637 | 1.525 | 3.301 | 0.362 | 63.2 |
| 400S300-118 | 33 | 1.314 | 4.47 | 3.518 | 1.759 | 1.636 | 1.572 | 1.094 | 3.518 | 1.742 | 34.41 | 34.41 | 5193 | 728 | 6.755 | 6.317 | -2.608 | 1.510 | 3.267 | 0.363 | 80.0 |
| 400S300-118 | 50 | 1.314 | 4.47 | 3.518 | 1.759 | 1.636 | 1.572 | 1.094 | 3.518 | 1.673 | 50.09 | 51.76 | 7869 | 1102 | 6.755 | 6.317 | -2.608 | 1.510 | 3.267 | 0.363 | 63.7 |
| 400S350-54 | 33 | 0.712 | 2.42 | 2.012 | 1.006 | 1.681 | 1.286 | 1.344 | 1.976 | 0.826 | 16.32 | 17.61 | 2603 | 944 | 0.760 | 6.333 | -3.375 | 1.927 | 4.003 | 0.289 | 95.9 |
| 400S350-54 | 50 | 0.712 | 2.42 | 2.012 | 1.006 | 1.681 | 1.286 | 1.344 | 1.899 | 0.735 | 22.01 | 23.14 | 3372 | 1223 | 0.760 | 6.333 | -3.375 | 1.927 | 4.003 | 0.289 | 77.6 |
| 400S350-68 | 33 | 0.889 | 3.03 | 2.491 | 1.245 | 1.674 | 1.586 | 1.336 | 2.491 | 1.140 | 22.53 | 23.42 | 3215 | 895 | 1.507 | 7.786 | -3.357 | 1.917 | 3.982 | 0.289 | 96.3 |
| 400S350-68 | 50 | 0.889 | 3.03 | 2.491 | 1.245 | 1.674 | 1.586 | 1.336 | 2.474 | 1.007 | 30.16 | 31.13 | 4871 | 1356 | 1.507 | 7.786 | -3.357 | 1.917 | 3.982 | 0.289 | 77.8 |
| 400S350-97 | 33 | 1.245 | 4.24 | 3.422 | 1.711 | 1.658 | 2.164 | 1.318 | 3.422 | 1.693 | 33.46 | 33.53 | 4394 | 797 | 4.293 | 10.555 | -3.319 | 1.897 | 3.937 | 0.289 | 97.5 |
| 400S350-97 | 50 | 1.245 | 4.24 | 3.422 | 1.711 | 1.658 | 2.164 | 1.318 | 3.422 | 1.520 | 45.50 | 48.13 | 6658 | 1207 | 4.293 | 10.555 | -3.319 | 1.897 | 3.937 | 0.289 | 78.3 |
| 400S350-118 | 33 | 1.500 | 5.10 | 4.063 | 2.032 | 1.646 | 2.555 | 1.305 | 4.063 | 2.014 | 39.80 | 39.80 | 5193 | 728 | 7.712 | 12.410 | -3.290 | 1.882 | 3.904 | 0.290 | 98.9 |
| 400S350-118 | 50 | 1.500 | 5.10 | 4.063 | 2.032 | 1.646 | 2.555 | 1.305 | 4.063 | 1.944 | 58.19 | 59.96 | 7869 | 1102 | 7.712 | 12.410 | -3.290 | 1.882 | 3.904 | 0.290 | 78.9 |
| 550S125-27 | 33 | 0.229 | 0.78 | 0.938 | 0.341 | 2.023 | 0.034 | 0.385 | 0.898 | 0.246 | 4.86 | 3.93 | 382 | 382 | 0.061 | 0.205 | -0.641 | 0.417 | 2.157 | 0.912 | 27.9 |
| 550S125-30 | 33 | 0.252 | 0.86 | 1.031 | 0.375 | 2.021 | 0.037 | 0.384 | 0.996 | 0.286 | 5.65 | 4.54 | 512 | 512 | 0.082 | 0.224 | -0.639 | 0.415 | 2.154 | 0.912 | 27.9 |
| 550S125-33 | 33 | 0.279 | 0.95 | 1.139 | 0.414 | 2.019 | 0.041 | 0.382 | 1.111 | 0.335 | 6.62 | 5.29 | 699 | 699 | 0.112 | 0.246 | -0.635 | 0.413 | 2.151 | 0.913 | 27.8 |
| 550S125-43 | 33 | 0.362 | 1.23 | 1.468 | 0.534 | 2.013 | 0.052 | 0.377 | 1.458 | 0.500 | 9.88 | 7.81 | 1550 | 1199 | 0.246 | 0.309 | -0.625 | 0.407 | 2.141 | 0.915 | 27.6 |
| 550S125-54 | 33 | 0.450 | 1.53 | 1.805 | 0.656 | 2.002 | 0.061 | 0.369 | 1.805 | 0.647 | 12.79 | 10.77 | 2739 | 1666 | 0.481 | 0.374 | -0.613 | 0.401 | 2.126 | 0.917 | 27.3 |

Table 3 continued on next page

**TABLE 3—C-SECTION (STUD) SECTION PROPERTIES[2,3,4,5]**

| Section | Fy (ksi) | Gross Properties | | | | | | | Effective Properties | | | | | | Torsional Properties | | | | | β | Lu (in) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Area | W | Ixx | Sxx | Rx | Iyy | Ry | Ixx | Sxx | Ma-L | Ma-D | Vag | VaNet | Jx1000 | Cw | Xo | m | Ro | | |
| | | ($in^2$) | (lb/ft) | ($in^4$) | ($in^3$) | (in) | ($in^4$) | (in) | ($in^4$) | ($in^3$) | (in-k) | (in-k) | (lb) | (lb) | ($in^4$) | ($in^6$) | (in) | (in) | (in) | | |
| 550S125-54 | 50 | 0.450 | 1.53 | 1.805 | 0.656 | 2.002 | 0.061 | 0.369 | 1.791 | 0.606 | 18.13 | 14.05 | 3093 | 1881 | 0.481 | 0.374 | -0.613 | 0.401 | 2.126 | 0.917 | 22.1 |
| 550S125-68 | 33 | 0.559 | 1.90 | 2.209 | 0.803 | 1.987 | 0.072 | 0.358 | 2.205 | 0.801 | 15.83 | 14.76 | 4347 | 2057 | 0.948 | 0.448 | -0.597 | 0.392 | 2.106 | 0.920 | 27.0 |
| 550S125-68 | 50 | 0.559 | 1.90 | 2.209 | 0.803 | 1.987 | 0.072 | 0.358 | 2.205 | 0.791 | 23.68 | 19.54 | 5350 | 2532 | 0.948 | 0.448 | -0.597 | 0.392 | 2.106 | 0.920 | 21.8 |
| 550S137-33 | 33 | 0.301 | 1.02 | 1.283 | 0.467 | 2.064 | 0.067 | 0.472 | 1.283 | 0.453 | 8.95 | 7.13 | 699 | 699 | 0.120 | 0.411 | -0.841 | 0.536 | 2.278 | 0.864 | 33.7 |
| 550S137-43 | 33 | 0.391 | 1.33 | 1.655 | 0.602 | 2.059 | 0.085 | 0.467 | 1.655 | 0.602 | 11.89 | 10.22 | 1550 | 1199 | 0.265 | 0.520 | -0.830 | 0.530 | 2.268 | 0.866 | 33.5 |
| 550S137-54 | 33 | 0.486 | 1.65 | 2.039 | 0.741 | 2.049 | 0.103 | 0.460 | 2.039 | 0.741 | 14.65 | 13.71 | 2739 | 1666 | 0.519 | 0.632 | -0.817 | 0.523 | 2.254 | 0.868 | 33.3 |
| 550S137-54 | 50 | 0.486 | 1.65 | 2.039 | 0.741 | 2.049 | 0.103 | 0.460 | 2.039 | 0.722 | 21.63 | 18.17 | 3093 | 1881 | 0.519 | 0.632 | -0.817 | 0.523 | 2.254 | 0.868 | 27.0 |
| 550S137-68 | 33 | 0.604 | 2.05 | 2.503 | 0.910 | 2.036 | 0.123 | 0.451 | 2.503 | 0.910 | 17.99 | 17.84 | 4347 | 2057 | 1.023 | 0.764 | -0.801 | 0.514 | 2.234 | 0.871 | 33.1 |
| 550S137-68 | 50 | 0.604 | 2.05 | 2.503 | 0.910 | 2.036 | 0.123 | 0.451 | 2.503 | 0.910 | 27.25 | 24.54 | 5350 | 2532 | 1.023 | 0.764 | -0.801 | 0.514 | 2.234 | 0.871 | 26.8 |
| 550S137-97 | 33 | 0.838 | 2.85 | 3.380 | 1.229 | 2.008 | 0.155 | 0.430 | 3.380 | 1.229 | 24.28 | 24.08 | 6282 | 1997 | 2.891 | 0.997 | -0.766 | 0.497 | 2.192 | 0.878 | 32.8 |
| 550S137-97 | 50 | 0.838 | 2.85 | 3.380 | 1.229 | 2.008 | 0.155 | 0.430 | 3.380 | 1.229 | 36.79 | 36.48 | 9518 | 3026 | 2.891 | 0.997 | -0.766 | 0.497 | 2.192 | 0.878 | 26.4 |
| 550S162-33 | 33 | 0.327 | 1.11 | 1.458 | 0.530 | 2.112 | 0.113 | 0.589 | 1.458 | 0.512 | 10.11 | 8.31 | 699 | 699 | 0.130 | 0.713 | -1.114 | 0.697 | 2.459 | 0.795 | 41.4 |
| 550S162-43 | 33 | 0.424 | 1.44 | 1.883 | 0.685 | 2.107 | 0.145 | 0.584 | 1.883 | 0.685 | 13.53 | 11.84 | 1550 | 1199 | 0.288 | 0.905 | -1.103 | 0.691 | 2.448 | 0.797 | 41.2 |
| 550S162-54 | 33 | 0.528 | 1.80 | 2.324 | 0.845 | 2.098 | 0.176 | 0.577 | 2.324 | 0.845 | 16.70 | 15.81 | 2739 | 1666 | 0.564 | 1.105 | -1.090 | 0.684 | 2.434 | 0.800 | 41.0 |
| 550S162-54 | 50 | 0.528 | 1.80 | 2.324 | 0.845 | 2.098 | 0.176 | 0.577 | 2.324 | 0.822 | 24.60 | 21.00 | 3093 | 1881 | 0.564 | 1.105 | -1.090 | 0.684 | 2.434 | 0.800 | 33.2 |
| 550S162-68 | 33 | 0.657 | 2.24 | 2.861 | 1.040 | 2.086 | 0.212 | 0.568 | 2.861 | 1.040 | 20.56 | 20.42 | 4347 | 2057 | 1.114 | 1.342 | -1.072 | 0.675 | 2.414 | 0.803 | 40.9 |
| 550S162-68 | 50 | 0.657 | 2.24 | 2.861 | 1.040 | 2.086 | 0.212 | 0.568 | 2.861 | 1.040 | 31.15 | 28.23 | 5350 | 2532 | 1.114 | 1.342 | -1.072 | 0.675 | 2.414 | 0.803 | 33.1 |
| 550S162-97 | 33 | 0.915 | 3.11 | 3.886 | 1.413 | 2.061 | 0.276 | 0.549 | 3.886 | 1.413 | 27.92 | 27.72 | 6282 | 1997 | 3.154 | 1.775 | -1.037 | 0.656 | 2.372 | 0.809 | 40.7 |
| 550S162-97 | 50 | 0.915 | 3.11 | 3.886 | 1.413 | 2.061 | 0.276 | 0.549 | 3.886 | 1.413 | 42.31 | 42.00 | 9518 | 3026 | 3.154 | 1.775 | -1.037 | 0.656 | 2.372 | 0.809 | 32.8 |
| 550S162-118 | 33 | 1.096 | 3.73 | 4.571 | 1.662 | 2.042 | 0.313 | 0.534 | 4.571 | 1.662 | 32.85 | 32.59 | 7499 | 1889 | 5.637 | 2.047 | -1.010 | 0.642 | 2.340 | 0.814 | 40.7 |
| 550S162-118 | 50 | 1.096 | 3.73 | 4.571 | 1.662 | 2.042 | 0.313 | 0.534 | 4.571 | 1.662 | 49.77 | 49.38 | 11362 | 2862 | 5.637 | 2.047 | -1.010 | 0.642 | 2.340 | 0.814 | 32.6 |
| 550S200-33 | 33 | 0.362 | 1.23 | 1.694 | 0.616 | 2.164 | 0.204 | 0.751 | 1.678 | 0.559 | 11.05 | 9.51 | 699 | 699 | 0.144 | 1.326 | -1.508 | 0.925 | 2.742 | 0.698 | 51.9 |
| 550S200-43 | 33 | 0.469 | 1.60 | 2.189 | 0.796 | 2.159 | 0.261 | 0.746 | 2.189 | 0.776 | 15.33 | 13.54 | 1550 | 1199 | 0.318 | 1.691 | -1.496 | 0.918 | 2.731 | 0.700 | 51.7 |
| 550S200-54 | 33 | 0.585 | 1.99 | 2.706 | 0.984 | 2.152 | 0.320 | 0.739 | 2.706 | 0.984 | 19.45 | 18.09 | 2739 | 1666 | 0.624 | 2.072 | -1.483 | 0.911 | 2.716 | 0.702 | 51.6 |
| 550S200-54 | 50 | 0.585 | 1.99 | 2.706 | 0.984 | 2.152 | 0.320 | 0.739 | 2.706 | 0.901 | 26.98 | 23.95 | 3093 | 1881 | 0.624 | 2.072 | -1.483 | 0.911 | 2.716 | 0.702 | 41.8 |
| 550S200-68 | 33 | 0.729 | 2.48 | 3.341 | 1.215 | 2.141 | 0.389 | 0.731 | 3.341 | 1.215 | 24.00 | 23.78 | 4347 | 2057 | 1.235 | 2.531 | -1.465 | 0.902 | 2.695 | 0.705 | 51.6 |
| 550S200-68 | 50 | 0.729 | 2.48 | 3.341 | 1.215 | 2.141 | 0.389 | 0.731 | 3.341 | 1.188 | 35.57 | 32.21 | 5350 | 2532 | 1.235 | 2.531 | -1.465 | 0.902 | 2.695 | 0.705 | 41.7 |
| 550S200-97 | 33 | 1.016 | 3.46 | 4.563 | 1.659 | 2.119 | 0.515 | 0.712 | 4.563 | 1.659 | 32.79 | 32.59 | 6282 | 1997 | 3.504 | 3.384 | -1.428 | 0.882 | 2.652 | 0.710 | 51.6 |
| 550S200-97 | 50 | 1.016 | 3.46 | 4.563 | 1.659 | 2.119 | 0.515 | 0.712 | 4.563 | 1.659 | 49.68 | 49.18 | 9518 | 3026 | 3.504 | 3.384 | -1.428 | 0.882 | 2.652 | 0.710 | 41.5 |
| 550S200-118 | 33 | 1.220 | 4.15 | 5.393 | 1.961 | 2.102 | 0.595 | 0.698 | 5.393 | 1.961 | 38.75 | 38.50 | 7499 | 1889 | 6.276 | 3.937 | -1.400 | 0.868 | 2.620 | 0.714 | 51.7 |
| 550S200-118 | 50 | 1.220 | 4.15 | 5.393 | 1.961 | 2.102 | 0.595 | 0.698 | 5.393 | 1.961 | 58.71 | 58.33 | 11362 | 2862 | 6.276 | 3.937 | -1.400 | 0.868 | 2.620 | 0.714 | 41.5 |
| 550S250-43 | 33 | 0.515 | 1.75 | 2.524 | 0.918 | 2.215 | 0.445 | 0.930 | 2.524 | 0.817 | 16.15 | 14.31 | 1550 | 1199 | 0.349 | 2.837 | -1.933 | 1.163 | 3.083 | 0.607 | 62.6 |
| 550S250-54 | 33 | 0.641 | 2.18 | 3.126 | 1.137 | 2.208 | 0.547 | 0.923 | 3.126 | 1.033 | 20.40 | 19.26 | 2739 | 1666 | 0.685 | 3.486 | -1.919 | 1.155 | 3.067 | 0.609 | 62.6 |
| 550S250-54 | 50 | 0.641 | 2.18 | 3.126 | 1.137 | 2.208 | 0.547 | 0.923 | 3.084 | 0.950 | 28.44 | 25.21 | 3093 | 1881 | 0.685 | 3.486 | -1.919 | 1.155 | 3.067 | 0.609 | 50.7 |
| 550S250-68 | 33 | 0.800 | 2.72 | 3.866 | 1.406 | 2.198 | 0.669 | 0.914 | 3.866 | 1.358 | 26.83 | 25.80 | 4347 | 2057 | 1.356 | 4.274 | -1.900 | 1.146 | 3.046 | 0.611 | 62.5 |
| 550S250-68 | 50 | 0.800 | 2.72 | 3.866 | 1.406 | 2.198 | 0.669 | 0.914 | 3.864 | 1.233 | 36.91 | 34.15 | 5350 | 2532 | 1.356 | 4.274 | -1.900 | 1.146 | 3.046 | 0.611 | 50.6 |
| 550S250-97 | 33 | 1.118 | 3.80 | 5.304 | 1.929 | 2.178 | 0.897 | 0.895 | 5.304 | 1.929 | 38.11 | 37.91 | 6282 | 1997 | 3.855 | 5.761 | -1.862 | 1.126 | 3.002 | 0.615 | 62.7 |
| 550S250-97 | 50 | 1.118 | 3.80 | 5.304 | 1.929 | 2.178 | 0.897 | 0.895 | 5.304 | 1.851 | 55.43 | 53.49 | 9518 | 3026 | 3.855 | 5.761 | -1.862 | 1.126 | 3.002 | 0.615 | 50.5 |
| 550S250-118 | 33 | 1.345 | 4.58 | 6.290 | 2.287 | 2.163 | 1.044 | 0.881 | 6.290 | 2.287 | 45.20 | 44.95 | 7499 | 1889 | 6.914 | 6.744 | -1.833 | 1.111 | 2.969 | 0.619 | 63.0 |
| 550S250-118 | 50 | 1.345 | 4.58 | 6.290 | 2.287 | 2.163 | 1.044 | 0.881 | 6.290 | 2.270 | 67.95 | 67.70 | 11362 | 2862 | 6.914 | 6.744 | -1.833 | 1.111 | 2.969 | 0.619 | 50.5 |
| 550S300-54 | 33 | 0.712 | 2.42 | 3.605 | 1.311 | 2.250 | 0.904 | 1.127 | 3.605 | 1.165 | 23.02 | 21.59 | 2739 | 1666 | 0.760 | 6.059 | -2.460 | 1.457 | 3.520 | 0.511 | 75.8 |
| 550S300-54 | 50 | 0.712 | 2.42 | 3.605 | 1.311 | 2.250 | 0.904 | 1.127 | 3.473 | 1.058 | 31.68 | 28.17 | 3093 | 1881 | 0.760 | 6.059 | -2.460 | 1.457 | 3.520 | 0.511 | 61.5 |
| 550S300-68 | 33 | 0.889 | 3.03 | 4.467 | 1.624 | 2.241 | 1.112 | 1.118 | 4.467 | 1.492 | 29.49 | 28.99 | 4347 | 2057 | 1.507 | 7.451 | -2.442 | 1.447 | 3.498 | 0.513 | 75.8 |
| 550S300-68 | 50 | 0.889 | 3.03 | 4.467 | 1.624 | 2.241 | 1.112 | 1.118 | 4.423 | 1.357 | 40.63 | 38.21 | 5350 | 2532 | 1.507 | 7.451 | -2.442 | 1.447 | 3.498 | 0.513 | 61.4 |
| 550S300-97 | 33 | 1.245 | 4.24 | 6.153 | 2.238 | 2.223 | 1.507 | 1.100 | 6.153 | 2.208 | 43.63 | 44.01 | 6282 | 1997 | 4.293 | 10.108 | -2.403 | 1.427 | 3.453 | 0.516 | 76.1 |
| 550S300-97 | 50 | 1.245 | 4.24 | 6.153 | 2.238 | 2.223 | 1.507 | 1.100 | 6.153 | 2.103 | 62.96 | 60.05 | 9518 | 3026 | 4.293 | 10.108 | -2.403 | 1.427 | 3.453 | 0.516 | 61.4 |
| 550S300-118 | 33 | 1.500 | 5.10 | 7.319 | 2.662 | 2.209 | 1.769 | 1.086 | 7.319 | 2.662 | 52.59 | 52.34 | 7499 | 1889 | 7.712 | 11.890 | -2.374 | 1.412 | 3.420 | 0.518 | 76.6 |
| 550S300-118 | 50 | 1.500 | 5.10 | 7.319 | 2.662 | 2.209 | 1.769 | 1.086 | 7.319 | 2.559 | 76.63 | 76.52 | 11362 | 2862 | 7.712 | 11.890 | -2.374 | 1.412 | 3.420 | 0.518 | 61.5 |
| 550S350-54 | 33 | 0.797 | 2.71 | 4.124 | 1.500 | 2.275 | 1.445 | 1.347 | 4.032 | 1.297 | 25.63 | 24.96 | 2739 | 1666 | 0.851 | 10.993 | -3.114 | 1.820 | 4.085 | 0.419 | 92.5 |
| 550S350-54 | 50 | 0.797 | 2.71 | 4.124 | 1.500 | 2.275 | 1.445 | 1.347 | 3.872 | 1.190 | 35.62 | 32.59 | 3093 | 1881 | 0.851 | 10.993 | -3.114 | 1.820 | 4.085 | 0.419 | 74.9 |
| 550S350-68 | 33 | 0.996 | 3.39 | 5.118 | 1.861 | 2.267 | 1.784 | 1.338 | 5.118 | 1.742 | 34.42 | 33.47 | 4347 | 2057 | 1.688 | 13.553 | -3.095 | 1.811 | 4.063 | 0.420 | 92.5 |
| 550S350-68 | 50 | 0.996 | 3.39 | 5.118 | 1.861 | 2.267 | 1.784 | 1.338 | 5.061 | 1.580 | 47.29 | 44.16 | 5350 | 2532 | 1.688 | 13.553 | -3.095 | 1.811 | 4.063 | 0.420 | 74.9 |
| 550S350-97 | 33 | 1.398 | 4.76 | 7.073 | 2.572 | 2.250 | 2.439 | 1.321 | 7.073 | 2.566 | 50.70 | 50.62 | 6282 | 1997 | 4.819 | 18.485 | -3.057 | 1.790 | 4.019 | 0.421 | 93.0 |
| 550S350-97 | 50 | 1.398 | 4.76 | 7.073 | 2.572 | 2.250 | 2.439 | 1.321 | 7.073 | 2.317 | 69.38 | 69.28 | 9518 | 3026 | 4.819 | 18.485 | -3.057 | 1.790 | 4.019 | 0.421 | 75.0 |
| 550S350-118 | 33 | 1.686 | 5.74 | 8.435 | 3.067 | 2.237 | 2.884 | 1.308 | 8.435 | 3.067 | 60.61 | 60.36 | 7499 | 1889 | 8.670 | 21.834 | -3.028 | 1.775 | 3.985 | 0.423 | 93.5 |
| 550S350-118 | 50 | 1.686 | 5.74 | 8.435 | 3.067 | 2.237 | 2.884 | 1.308 | 8.435 | 2.952 | 88.38 | 88.20 | 11362 | 2862 | 8.670 | 21.834 | -3.028 | 1.775 | 3.985 | 0.423 | 75.2 |
| 600S125-27[1] | 33 | 0.243 | 0.83 | 1.160 | 0.387 | 2.183 | 0.035 | 0.377 | 1.097 | 0.271 | 5.35 | 4.28 | 349 | 349 | 0.065 | 0.251 | -0.614 | 0.402 | 2.299 | 0.929 | 27.7 |
| 600S125-30 | 33 | 0.268 | 0.91 | 1.275 | 0.425 | 2.181 | 0.038 | 0.376 | 1.218 | 0.315 | 6.22 | 4.96 | 468 | 468 | 0.087 | 0.274 | -0.611 | 0.401 | 2.296 | 0.929 | 27.6 |
| 600S125-33 | 33 | 0.297 | 1.01 | 1.409 | 0.470 | 2.179 | 0.042 | 0.374 | 1.361 | 0.369 | 7.30 | 5.79 | 638 | 638 | 0.118 | 0.300 | -0.608 | 0.399 | 2.293 | 0.930 | 27.6 |

Table 3 continued on next page

**TABLE 3—C-SECTION (STUD) SECTION PROPERTIES[2,3,4,5] (Continued)**

| Section | Fy | Gross Properties | | | | | | | Effective Properties | | | | | | Torsional Properties | | | | | | Lu |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Area | W | Ixx | Sxx | Rx | Iyy | Ry | Ixx | Sxx | Ma-L | Ma-D | Vag | VaNet | Jx1000 | Cw | Xo | m | Ro | β | |
| | (ksi) | ($in^2$) | (lb/ft) | ($in^4$) | ($in^3$) | (in) | ($in^4$) | (in) | ($in^4$) | ($in^3$) | (in-k) | (in-k) | (lb) | (lb) | ($in^4$) | ($in^6$) | (in) | (in) | (in) | | (in) |
| 600S125-43 | 33 | 0.385 | 1.31 | 1.817 | 0.606 | 2.173 | 0.053 | 0.369 | 1.807 | 0.555 | 10.96 | 8.60 | 1416 | 1240 | 0.261 | 0.378 | -0.598 | 0.393 | 2.284 | 0.931 | 27.3 |
| 600S125-54 | 33 | 0.479 | 1.63 | 2.236 | 0.745 | 2.161 | 0.063 | 0.362 | 2.236 | 0.727 | 14.37 | 11.93 | 2739 | 1890 | 0.511 | 0.457 | -0.586 | 0.386 | 2.269 | 0.933 | 27.1 |
| 600S125-54 | 50 | 0.479 | 1.63 | 2.236 | 0.745 | 2.161 | 0.063 | 0.362 | 2.220 | 0.673 | 20.15 | 15.51 | 2823 | 1947 | 0.511 | 0.457 | -0.586 | 0.386 | 2.269 | 0.933 | 21.9 |
| 600S125-68 | 33 | 0.595 | 2.02 | 2.740 | 0.913 | 2.146 | 0.073 | 0.351 | 2.735 | 0.911 | 18.00 | 16.43 | 4347 | 2339 | 1.008 | 0.548 | -0.570 | 0.378 | 2.248 | 0.936 | 26.7 |
| 600S125-68 | 50 | 0.595 | 2.02 | 2.740 | 0.913 | 2.146 | 0.073 | 0.351 | 2.735 | 0.898 | 26.88 | 21.68 | 5350 | 2879 | 1.008 | 0.548 | -0.570 | 0.378 | 2.248 | 0.936 | 21.6 |
| 600S137-33 | 33 | 0.318 | 1.08 | 1.582 | 0.527 | 2.229 | 0.069 | 0.464 | 1.548 | 0.455 | 8.98 | 7.81 | 638 | 638 | 0.127 | 0.500 | -0.807 | 0.519 | 2.416 | 0.889 | 33.5 |
| 600S137-43 | 33 | 0.413 | 1.41 | 2.042 | 0.681 | 2.223 | 0.087 | 0.459 | 2.041 | 0.645 | 12.74 | 11.25 | 1416 | 1240 | 0.280 | 0.633 | -0.796 | 0.513 | 2.406 | 0.890 | 33.3 |
| 600S137-54 | 33 | 0.514 | 1.75 | 2.518 | 0.839 | 2.213 | 0.105 | 0.452 | 2.518 | 0.832 | 16.44 | 15.17 | 2739 | 1890 | 0.549 | 0.769 | -0.784 | 0.506 | 2.391 | 0.893 | 33.0 |
| 600S137-54 | 50 | 0.514 | 1.75 | 2.518 | 0.839 | 2.213 | 0.105 | 0.452 | 2.518 | 0.777 | 23.26 | 20.03 | 2823 | 1947 | 0.549 | 0.769 | -0.784 | 0.506 | 2.391 | 0.893 | 26.8 |
| 600S137-68 | 33 | 0.640 | 2.18 | 3.094 | 1.031 | 2.200 | 0.125 | 0.443 | 3.094 | 1.031 | 20.38 | 20.14 | 4347 | 2339 | 1.084 | 0.930 | -0.768 | 0.497 | 2.371 | 0.895 | 32.8 |
| 600S137-68 | 50 | 0.640 | 2.18 | 3.094 | 1.031 | 2.200 | 0.125 | 0.443 | 3.094 | 1.030 | 30.84 | 27.19 | 5350 | 2879 | 1.084 | 0.930 | -0.768 | 0.497 | 2.371 | 0.895 | 26.5 |
| 600S137-97 | 33 | 0.889 | 3.03 | 4.188 | 1.396 | 2.170 | 0.159 | 0.422 | 4.188 | 1.396 | 27.59 | 27.40 | 6911 | 2512 | 3.066 | 1.216 | -0.734 | 0.480 | 2.330 | 0.901 | 32.4 |
| 600S137-97 | 50 | 0.889 | 3.03 | 4.188 | 1.396 | 2.170 | 0.159 | 0.422 | 4.188 | 1.396 | 41.80 | 41.51 | 10472 | 3805 | 3.066 | 1.216 | -0.734 | 0.480 | 2.330 | 0.901 | 26.1 |
| 600S162-33 | 33 | 0.344 | 1.17 | 1.793 | 0.598 | 2.282 | 0.116 | 0.581 | 1.793 | 0.577 | 11.41 | 9.13 | 638 | 638 | 0.137 | 0.861 | -1.072 | 0.677 | 2.587 | 0.828 | 41.1 |
| 600S162-43 | 33 | 0.447 | 1.52 | 2.316 | 0.772 | 2.276 | 0.148 | 0.576 | 2.316 | 0.772 | 15.25 | 13.05 | 1416 | 1240 | 0.303 | 1.095 | -1.062 | 0.670 | 2.577 | 0.830 | 40.9 |
| 600S162-54 | 33 | 0.556 | 1.89 | 2.860 | 0.953 | 2.267 | 0.180 | 0.570 | 2.860 | 0.953 | 18.84 | 17.50 | 2739 | 1890 | 0.594 | 1.337 | -1.049 | 0.663 | 2.562 | 0.832 | 40.7 |
| 600S162-54 | 50 | 0.556 | 1.89 | 2.860 | 0.953 | 2.267 | 0.180 | 0.570 | 2.860 | 0.927 | 27.76 | 23.16 | 2823 | 1947 | 0.594 | 1.337 | -1.049 | 0.663 | 2.562 | 0.832 | 33.0 |
| 600S162-68 | 33 | 0.693 | 2.36 | 3.525 | 1.175 | 2.255 | 0.218 | 0.560 | 3.525 | 1.175 | 23.22 | 23.03 | 4347 | 2339 | 1.174 | 1.626 | -1.032 | 0.655 | 2.543 | 0.835 | 40.6 |
| 600S162-68 | 50 | 0.693 | 2.36 | 3.525 | 1.175 | 2.255 | 0.218 | 0.560 | 3.525 | 1.175 | 35.18 | 31.27 | 5350 | 2879 | 1.174 | 1.626 | -1.032 | 0.655 | 2.543 | 0.835 | 32.8 |
| 600S162-97 | 33 | 0.966 | 3.29 | 4.797 | 1.599 | 2.229 | 0.283 | 0.541 | 4.797 | 1.599 | 31.60 | 31.41 | 6911 | 2512 | 3.329 | 2.153 | -0.997 | 0.636 | 2.501 | 0.841 | 40.3 |
| 600S162-97 | 50 | 0.966 | 3.29 | 4.797 | 1.599 | 2.229 | 0.283 | 0.541 | 4.797 | 1.599 | 47.88 | 47.59 | 10472 | 3805 | 3.329 | 2.153 | -0.997 | 0.636 | 2.501 | 0.841 | 32.5 |
| 600S162-118 | 33 | 1.158 | 3.94 | 5.652 | 1.884 | 2.209 | 0.321 | 0.526 | 5.652 | 1.884 | 37.23 | 37.00 | 8267 | 2391 | 5.956 | 2.487 | -0.971 | 0.623 | 2.470 | 0.845 | 40.2 |
| 600S162-118 | 50 | 1.158 | 3.94 | 5.652 | 1.884 | 2.209 | 0.321 | 0.526 | 5.652 | 1.884 | 56.41 | 56.06 | 12526 | 3622 | 5.956 | 2.487 | -0.971 | 0.623 | 2.470 | 0.845 | 32.3 |
| 600S200-33 | 33 | 0.379 | 1.29 | 2.075 | 0.692 | 2.340 | 0.209 | 0.743 | 2.058 | 0.621 | 12.28 | 10.46 | 638 | 638 | 0.151 | 1.593 | -1.457 | 0.901 | 2.855 | 0.740 | 51.6 |
| 600S200-43 | 33 | 0.492 | 1.67 | 2.683 | 0.894 | 2.335 | 0.268 | 0.739 | 2.683 | 0.873 | 17.24 | 14.93 | 1416 | 1240 | 0.334 | 2.033 | -1.446 | 0.894 | 2.844 | 0.742 | 51.4 |
| 600S200-54 | 33 | 0.613 | 2.09 | 3.319 | 1.106 | 2.327 | 0.328 | 0.732 | 3.319 | 1.106 | 21.86 | 20.00 | 2739 | 1890 | 0.655 | 2.493 | -1.432 | 0.887 | 2.829 | 0.744 | 51.3 |
| 600S200-54 | 50 | 0.613 | 2.09 | 3.319 | 1.106 | 2.327 | 0.328 | 0.732 | 3.319 | 1.015 | 30.40 | 26.41 | 2823 | 1947 | 0.655 | 2.493 | -1.432 | 0.887 | 2.829 | 0.744 | 41.6 |
| 600S200-68 | 33 | 0.764 | 2.60 | 4.101 | 1.367 | 2.316 | 0.400 | 0.723 | 4.101 | 1.367 | 27.01 | 26.62 | 4347 | 2339 | 1.295 | 3.047 | -1.415 | 0.878 | 2.809 | 0.746 | 51.2 |
| 600S200-68 | 50 | 0.764 | 2.60 | 4.101 | 1.367 | 2.316 | 0.400 | 0.723 | 4.101 | 1.337 | 40.03 | 35.64 | 5350 | 2879 | 1.295 | 3.047 | -1.415 | 0.878 | 2.809 | 0.746 | 41.4 |
| 600S200-97 | 33 | 1.067 | 3.63 | 5.612 | 1.871 | 2.293 | 0.530 | 0.705 | 5.612 | 1.871 | 36.96 | 36.78 | 6911 | 2512 | 3.679 | 4.080 | -1.378 | 0.859 | 2.767 | 0.752 | 51.1 |
| 600S200-97 | 50 | 1.067 | 3.63 | 5.612 | 1.871 | 2.293 | 0.530 | 0.705 | 5.612 | 1.871 | 56.01 | 55.26 | 10472 | 3805 | 3.679 | 4.080 | -1.378 | 0.859 | 2.767 | 0.752 | 41.2 |
| 600S200-118 | 33 | 1.283 | 4.36 | 6.641 | 2.214 | 2.275 | 0.611 | 0.690 | 6.641 | 2.214 | 43.74 | 43.51 | 8267 | 2391 | 6.595 | 4.753 | -1.351 | 0.845 | 2.735 | 0.756 | 51.1 |
| 600S200-118 | 50 | 1.283 | 4.36 | 6.641 | 2.214 | 2.275 | 0.611 | 0.690 | 6.641 | 2.214 | 66.28 | 65.93 | 12526 | 3622 | 6.595 | 4.753 | -1.351 | 0.845 | 2.735 | 0.756 | 41.1 |
| 600S250-43 | 33 | 0.537 | 1.83 | 3.082 | 1.027 | 2.396 | 0.458 | 0.923 | 3.082 | 0.918 | 18.14 | 15.74 | 1416 | 1240 | 0.364 | 3.411 | -1.874 | 1.136 | 3.179 | 0.652 | 62.4 |
| 600S250-54 | 33 | 0.670 | 2.28 | 3.819 | 1.273 | 2.388 | 0.562 | 0.917 | 3.819 | 1.159 | 22.90 | 21.24 | 2739 | 1890 | 0.715 | 4.194 | -1.860 | 1.129 | 3.163 | 0.654 | 62.3 |
| 600S250-54 | 50 | 0.670 | 2.28 | 3.819 | 1.273 | 2.388 | 0.562 | 0.917 | 3.766 | 1.069 | 32.00 | 27.74 | 2823 | 1947 | 0.715 | 4.194 | -1.860 | 1.129 | 3.163 | 0.654 | 50.5 |
| 600S250-68 | 33 | 0.836 | 2.84 | 4.727 | 1.576 | 2.378 | 0.688 | 0.908 | 4.727 | 1.522 | 30.08 | 28.53 | 4347 | 2339 | 1.416 | 5.145 | -1.842 | 1.119 | 3.142 | 0.656 | 62.2 |
| 600S250-68 | 50 | 0.836 | 2.84 | 4.727 | 1.576 | 2.378 | 0.688 | 0.908 | 4.723 | 1.386 | 41.49 | 37.68 | 5350 | 2879 | 1.416 | 5.145 | -1.842 | 1.119 | 3.142 | 0.656 | 50.4 |
| 600S250-97 | 33 | 1.169 | 3.98 | 6.496 | 2.165 | 2.357 | 0.923 | 0.889 | 6.496 | 2.165 | 42.79 | 42.60 | 6911 | 2512 | 4.030 | 6.947 | -1.803 | 1.100 | 3.098 | 0.661 | 62.2 |
| 600S250-97 | 50 | 1.169 | 3.98 | 6.496 | 2.165 | 2.357 | 0.923 | 0.889 | 6.496 | 2.079 | 62.25 | 59.31 | 10472 | 3805 | 4.030 | 6.947 | -1.803 | 1.100 | 3.098 | 0.661 | 50.2 |
| 600S250-118 | 33 | 1.407 | 4.79 | 7.713 | 2.571 | 2.342 | 1.075 | 0.874 | 7.713 | 2.571 | 50.80 | 50.57 | 8267 | 2391 | 7.234 | 8.142 | -1.775 | 1.085 | 3.066 | 0.665 | 62.4 |
| 600S250-118 | 50 | 1.407 | 4.79 | 7.713 | 2.571 | 2.342 | 1.075 | 0.874 | 7.713 | 2.551 | 76.38 | 75.57 | 12526 | 3622 | 7.234 | 8.142 | -1.775 | 1.085 | 3.066 | 0.665 | 50.1 |
| 600S300-54 | 33 | 0.740 | 2.52 | 4.395 | 1.465 | 2.436 | 0.932 | 1.122 | 4.395 | 1.305 | 25.79 | 23.76 | 2739 | 1890 | 0.791 | 7.238 | -2.392 | 1.427 | 3.594 | 0.557 | 75.5 |
| 600S300-54 | 50 | 0.740 | 2.52 | 4.395 | 1.465 | 2.436 | 0.932 | 1.122 | 4.233 | 1.189 | 35.59 | 30.95 | 2823 | 1947 | 0.791 | 7.238 | -2.392 | 1.427 | 3.594 | 0.557 | 61.2 |
| 600S300-68 | 33 | 0.925 | 3.15 | 5.449 | 1.816 | 2.427 | 1.146 | 1.113 | 5.449 | 1.67 | 33.00 | 31.99 | 4347 | 2339 | 1.567 | 8.907 | -2.374 | 1.417 | 3.573 | 0.559 | 75.5 |
| 600S300-68 | 50 | 0.925 | 3.15 | 5.449 | 1.816 | 2.427 | 1.146 | 1.113 | 5.391 | 1.523 | 45.60 | 42.07 | 5350 | 2879 | 1.567 | 8.907 | -2.374 | 1.417 | 3.573 | 0.559 | 61.1 |
| 600S300-97 | 33 | 1.296 | 4.41 | 7.517 | 2.506 | 2.408 | 1.553 | 1.095 | 7.517 | 2.472 | 48.85 | 49.20 | 6911 | 2512 | 4.468 | 12.103 | -2.335 | 1.398 | 3.529 | 0.562 | 75.6 |
| 600S300-97 | 50 | 1.296 | 4.41 | 7.517 | 2.506 | 2.408 | 1.553 | 1.095 | 7.517 | 2.355 | 70.52 | 66.41 | 10472 | 3805 | 4.468 | 12.103 | -2.335 | 1.398 | 3.529 | 0.562 | 61.0 |
| 600S300-118 | 33 | 1.562 | 5.32 | 8.951 | 2.984 | 2.394 | 1.824 | 1.081 | 8.951 | 2.984 | 58.96 | 58.73 | 8267 | 2391 | 8.032 | 14.255 | -2.306 | 1.383 | 3.495 | 0.565 | 75.9 |
| 600S300-118 | 50 | 1.562 | 5.32 | 8.951 | 2.984 | 2.394 | 1.824 | 1.081 | 8.951 | 2.869 | 85.90 | 84.87 | 12526 | 3622 | 8.032 | 14.255 | -2.306 | 1.383 | 3.495 | 0.565 | 61.0 |
| 600S350-54 | 33 | 0.825 | 2.81 | 5.022 | 1.674 | 2.467 | 1.491 | 1.344 | 4.911 | 1.452 | 28.70 | 27.45 | 2739 | 1890 | 0.881 | 12.942 | -3.037 | 1.787 | 4.137 | 0.461 | 91.8 |
| 600S350-54 | 50 | 0.825 | 2.81 | 5.022 | 1.674 | 2.467 | 1.491 | 1.344 | 4.721 | 1.335 | 39.97 | 35.79 | 2823 | 1947 | 0.881 | 12.942 | -3.037 | 1.787 | 4.137 | 0.461 | 74.4 |
| 600S350-68 | 33 | 1.032 | 3.51 | 6.237 | 2.079 | 2.459 | 1.841 | 1.336 | 6.237 | 1.949 | 38.50 | 36.90 | 4347 | 2339 | 1.748 | 15.968 | -3.018 | 1.777 | 4.115 | 0.462 | 91.8 |
| 600S350-68 | 50 | 1.032 | 3.51 | 6.237 | 2.079 | 2.459 | 1.841 | 1.336 | 6.166 | 1.771 | 53.01 | 48.59 | 5350 | 2879 | 1.748 | 15.968 | -3.018 | 1.777 | 4.115 | 0.462 | 74.4 |
| 600S350-97 | 33 | 1.449 | 4.93 | 8.631 | 2.877 | 2.441 | 2.518 | 1.318 | 8.631 | 2.870 | 56.70 | 56.60 | 6911 | 2512 | 4.994 | 21.811 | -2.979 | 1.757 | 4.071 | 0.464 | 92.1 |
| 600S350-97 | 50 | 1.449 | 4.93 | 8.631 | 2.877 | 2.441 | 2.518 | 1.318 | 8.631 | 2.593 | 77.64 | 76.51 | 10472 | 3805 | 4.994 | 21.811 | -2.979 | 1.757 | 4.071 | 0.464 | 74.4 |
| 600S350-118 | 33 | 1.748 | 5.95 | 10.304 | 3.435 | 2.428 | 2.978 | 1.305 | 10.304 | 3.435 | 67.87 | 67.64 | 8267 | 2391 | 8.990 | 25.791 | -2.951 | 1.742 | 4.038 | 0.466 | 92.5 |
| 600S350-118 | 50 | 1.748 | 5.95 | 10.304 | 3.435 | 2.428 | 2.978 | 1.305 | 10.304 | 3.303 | 98.88 | 97.67 | 12526 | 3622 | 8.990 | 25.791 | -2.951 | 1.742 | 4.038 | 0.466 | 74.5 |

Table 3 continued on next page

**TABLE 3—C-SECTION (STUD) SECTION PROPERTIES[2,3,4,5]**

| Section | Fy (ksi) | Gross Properties | | | | | | | Effective Properties | | | | | | Torsional Properties | | | | | | Lu (in) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Area | W | Ixx | Sxx | Rx | Iyy | Ry | Ixx | Sxx | Ma-L | Ma-D | Vag | VaNet | Jx1000 | Cw | Xo | m | Ro | β | |
| | | ($in^2$) | (lb/ft) | ($in^4$) | ($in^3$) | (in) | ($in^4$) | (in) | ($in^4$) | ($in^3$) | (in-k) | (in-k) | (lb) | (lb) | ($in^4$) | ($in^6$) | (in) | (in) | (in) | | |
| 725S125-27[1] | 33 | 0.279 | 0.95 | 1.852 | 0.511 | 2.577 | 0.036 | 0.360 | 1.693 | 0.332 | 6.56 | 5.11 | 287 | 287 | 0.074 | 0.387 | -0.554 | 0.370 | 2.661 | 0.957 | 27.1 |
| 725S125-30[1] | 33 | 0.307 | 1.04 | 2.036 | 0.562 | 2.575 | 0.039 | 0.358 | 1.886 | 0.387 | 7.65 | 5.94 | 384 | 384 | 0.100 | 0.423 | -0.552 | 0.368 | 2.658 | 0.957 | 27.1 |
| 725S125-33[1] | 33 | 0.340 | 1.16 | 2.251 | 0.621 | 2.573 | 0.043 | 0.357 | 2.114 | 0.456 | 9.00 | 6.97 | 525 | 525 | 0.136 | 0.464 | -0.549 | 0.366 | 2.655 | 0.957 | 27.0 |
| 725S125-43 | 33 | 0.441 | 1.50 | 2.905 | 0.802 | 2.566 | 0.055 | 0.352 | 2.835 | 0.691 | 13.65 | 10.47 | 1163 | 1163 | 0.299 | 0.586 | -0.540 | 0.361 | 2.646 | 0.958 | 26.7 |
| 725S125-54 | 33 | 0.549 | 1.87 | 3.582 | 0.988 | 2.554 | 0.065 | 0.344 | 3.582 | 0.92 | 18.17 | 14.69 | 2316 | 2072 | 0.587 | 0.708 | -0.528 | 0.354 | 2.631 | 0.960 | 26.4 |
| 725S125-54 | 50 | 0.549 | 1.87 | 3.582 | 0.988 | 2.554 | 0.065 | 0.344 | 3.504 | 0.841 | 25.18 | 18.98 | 2316 | 2072 | 0.587 | 0.708 | -0.528 | 0.354 | 2.631 | 0.960 | 21.4 |
| 725S125-68 | 33 | 0.684 | 2.33 | 4.403 | 1.215 | 2.537 | 0.076 | 0.334 | 4.396 | 1.210 | 23.91 | 20.51 | 4347 | 3044 | 1.159 | 0.851 | -0.514 | 0.347 | 2.610 | 0.961 | 26.0 |
| 725S125-68 | 50 | 0.684 | 2.33 | 4.403 | 1.215 | 2.537 | 0.076 | 0.334 | 4.396 | 1.141 | 34.15 | 26.84 | 4680 | 3278 | 1.159 | 0.851 | -0.514 | 0.347 | 2.610 | 0.961 | 21.1 |
| 725S137-33[1] | 33 | 0.362 | 1.23 | 2.509 | 0.692 | 2.634 | 0.072 | 0.445 | 2.392 | 0.559 | 11.05 | 9.41 | 525 | 525 | 0.144 | 0.766 | -0.733 | 0.480 | 2.770 | 0.930 | 32.9 |
| 725S137-43 | 33 | 0.469 | 1.60 | 3.241 | 0.894 | 2.628 | 0.091 | 0.441 | 3.178 | 0.802 | 15.84 | 13.71 | 1163 | 1163 | 0.318 | 0.971 | -0.724 | 0.474 | 2.761 | 0.931 | 32.6 |
| 725S137-54 | 33 | 0.585 | 1.99 | 4.003 | 1.104 | 2.617 | 0.110 | 0.434 | 4.003 | 1.048 | 20.72 | 18.71 | 2316 | 2072 | 0.624 | 1.181 | -0.712 | 0.468 | 2.746 | 0.933 | 32.4 |
| 725S137-54 | 50 | 0.585 | 1.99 | 4.003 | 1.104 | 2.617 | 0.110 | 0.434 | 3.945 | 0.968 | 28.99 | 24.49 | 2316 | 2072 | 0.624 | 1.181 | -0.712 | 0.468 | 2.746 | 0.933 | 26.2 |
| 725S137-68 | 33 | 0.729 | 2.48 | 4.932 | 1.360 | 2.602 | 0.131 | 0.424 | 4.932 | 1.359 | 26.86 | 25.37 | 4347 | 3044 | 1.235 | 1.430 | -0.697 | 0.460 | 2.726 | 0.935 | 32.1 |
| 725S137-68 | 50 | 0.729 | 2.48 | 4.932 | 1.360 | 2.602 | 0.131 | 0.424 | 4.932 | 1.304 | 39.03 | 33.66 | 4680 | 3278 | 1.235 | 1.430 | -0.697 | 0.460 | 2.726 | 0.935 | 26.0 |
| 725S137-97 | 33 | 1.016 | 3.46 | 6.710 | 1.851 | 2.569 | 0.166 | 0.404 | 6.710 | 1.851 | 36.58 | 36.42 | 8484 | 4049 | 3.504 | 1.875 | -0.665 | 0.443 | 2.685 | 0.939 | 31.5 |
| 725S137-97 | 50 | 1.016 | 3.46 | 6.710 | 1.851 | 2.569 | 0.166 | 0.404 | 6.710 | 1.851 | 55.42 | 53.60 | 10885 | 5195 | 3.504 | 1.875 | -0.665 | 0.443 | 2.685 | 0.939 | 25.4 |
| 725S162-33[1] | 33 | 0.388 | 1.32 | 2.822 | 0.778 | 2.698 | 0.122 | 0.562 | 2.706 | 0.638 | 12.61 | 11.10 | 525 | 525 | 0.155 | 1.309 | -0.982 | 0.631 | 2.926 | 0.887 | 40.5 |
| 725S162-43 | 33 | 0.503 | 1.71 | 3.648 | 1.006 | 2.692 | 0.156 | 0.557 | 3.585 | 0.913 | 18.04 | 16.01 | 1163 | 1163 | 0.341 | 1.666 | -0.972 | 0.625 | 2.916 | 0.889 | 40.2 |
| 725S162-54 | 33 | 0.627 | 2.13 | 4.513 | 1.245 | 2.683 | 0.190 | 0.550 | 4.513 | 1.188 | 23.48 | 21.67 | 2316 | 2072 | 0.670 | 2.036 | -0.960 | 0.618 | 2.902 | 0.891 | 40.0 |
| 725S162-54 | 50 | 0.627 | 2.13 | 4.513 | 1.245 | 2.683 | 0.190 | 0.550 | 4.455 | 1.100 | 32.93 | 28.46 | 2316 | 2072 | 0.670 | 2.036 | -0.960 | 0.618 | 2.902 | 0.891 | 32.5 |
| 725S162-68 | 33 | 0.782 | 2.66 | 5.572 | 1.537 | 2.669 | 0.229 | 0.541 | 5.572 | 1.536 | 30.35 | 29.15 | 4347 | 3044 | 1.325 | 2.479 | -0.944 | 0.610 | 2.882 | 0.893 | 39.8 |
| 725S162-68 | 50 | 0.782 | 2.66 | 5.572 | 1.537 | 2.669 | 0.229 | 0.541 | 5.572 | 1.479 | 44.29 | 38.81 | 4680 | 3278 | 1.325 | 2.479 | -0.944 | 0.610 | 2.882 | 0.893 | 32.2 |
| 725S162-97 | 33 | 1.093 | 3.72 | 7.618 | 2.101 | 2.640 | 0.297 | 0.522 | 7.618 | 2.101 | 41.53 | 41.37 | 8484 | 4049 | 3.767 | 3.293 | -0.911 | 0.592 | 2.841 | 0.897 | 39.3 |
| 725S162-97 | 50 | 1.093 | 3.72 | 7.618 | 2.101 | 2.640 | 0.297 | 0.522 | 7.618 | 2.101 | 62.92 | 61.18 | 10885 | 5195 | 3.767 | 3.293 | -0.911 | 0.592 | 2.841 | 0.897 | 31.8 |
| 725S162-118 | 33 | 1.314 | 4.47 | 9.007 | 2.485 | 2.618 | 0.337 | 0.507 | 9.007 | 2.485 | 49.10 | 48.91 | 10189 | 3896 | 6.755 | 3.811 | -0.886 | 0.579 | 2.810 | 0.901 | 39.0 |
| 725S162-118 | 50 | 1.314 | 4.47 | 9.007 | 2.485 | 2.618 | 0.337 | 0.507 | 9.007 | 2.485 | 74.39 | 74.10 | 15437 | 5903 | 6.755 | 3.811 | -0.886 | 0.579 | 2.810 | 0.901 | 31.4 |
| 725S200-33[1] | 33 | 0.422 | 1.44 | 3.241 | 0.894 | 2.771 | 0.221 | 0.724 | 3.234 | 0.743 | 14.67 | 12.79 | 525 | 525 | 0.168 | 2.395 | -1.346 | 0.847 | 3.164 | 0.819 | 50.9 |
| 725S200-43 | 33 | 0.548 | 1.87 | 4.193 | 1.157 | 2.765 | 0.284 | 0.719 | 4.193 | 1.131 | 22.34 | 18.38 | 1163 | 1163 | 0.372 | 3.059 | -1.335 | 0.840 | 3.154 | 0.821 | 50.7 |
| 725S200-54 | 33 | 0.684 | 2.33 | 5.195 | 1.433 | 2.756 | 0.347 | 0.713 | 5.195 | 1.433 | 28.32 | 24.80 | 2316 | 2072 | 0.730 | 3.755 | -1.322 | 0.833 | 3.139 | 0.823 | 50.5 |
| 725S200-54 | 50 | 0.684 | 2.33 | 5.195 | 1.433 | 2.756 | 0.347 | 0.713 | 5.195 | 1.321 | 39.55 | 32.55 | 2316 | 2072 | 0.730 | 3.755 | -1.322 | 0.833 | 3.139 | 0.823 | 41.0 |
| 725S200-68 | 33 | 0.853 | 2.90 | 6.428 | 1.773 | 2.744 | 0.423 | 0.704 | 6.428 | 1.773 | 35.04 | 33.30 | 4347 | 3044 | 1.446 | 4.596 | -1.305 | 0.824 | 3.119 | 0.825 | 50.3 |
| 725S200-68 | 50 | 0.853 | 2.90 | 6.428 | 1.773 | 2.744 | 0.423 | 0.704 | 6.428 | 1.736 | 51.96 | 44.25 | 4680 | 3278 | 1.446 | 4.596 | -1.305 | 0.824 | 3.119 | 0.825 | 40.8 |
| 725S200-97 | 33 | 1.194 | 4.06 | 8.831 | 2.436 | 2.719 | 0.561 | 0.685 | 8.831 | 2.436 | 48.14 | 47.98 | 8484 | 4049 | 4.118 | 6.175 | -1.270 | 0.806 | 3.078 | 0.830 | 50.0 |
| 725S200-97 | 50 | 1.194 | 4.06 | 8.831 | 2.436 | 2.719 | 0.561 | 0.685 | 8.831 | 2.436 | 72.93 | 69.62 | 10885 | 5195 | 4.118 | 6.175 | -1.270 | 0.806 | 3.078 | 0.830 | 40.4 |
| 725S200-118 | 33 | 1.438 | 4.89 | 10.480 | 2.891 | 2.700 | 0.647 | 0.671 | 10.480 | 2.891 | 57.13 | 56.94 | 10189 | 3896 | 7.393 | 7.210 | -1.244 | 0.792 | 3.047 | 0.833 | 49.9 |
| 725S200-118 | 50 | 1.438 | 4.89 | 10.480 | 2.891 | 2.700 | 0.647 | 0.671 | 10.480 | 2.891 | 86.56 | 86.27 | 15437 | 5903 | 7.393 | 7.210 | -1.244 | 0.792 | 3.047 | 0.833 | 40.2 |
| 725S250-43 | 33 | 0.593 | 2.02 | 4.778 | 1.318 | 2.838 | 0.486 | 0.905 | 4.778 | 1.186 | 23.44 | 19.33 | 1163 | 1163 | 0.402 | 5.134 | -1.744 | 1.076 | 3.451 | 0.745 | 61.8 |
| 725S250-54 | 33 | 0.740 | 2.52 | 5.927 | 1.635 | 2.829 | 0.597 | 0.898 | 5.927 | 1.495 | 29.55 | 26.22 | 2316 | 2072 | 0.791 | 6.319 | -1.730 | 1.069 | 3.436 | 0.747 | 61.7 |
| 725S250-54 | 50 | 0.740 | 2.52 | 5.927 | 1.635 | 2.829 | 0.597 | 0.898 | 5.837 | 1.388 | 41.55 | 34.11 | 2316 | 2072 | 0.791 | 6.319 | -1.730 | 1.069 | 3.436 | 0.747 | 50.0 |
| 725S250-68 | 33 | 0.925 | 3.15 | 7.347 | 2.027 | 2.819 | 0.730 | 0.889 | 7.347 | 1.960 | 38.72 | 35.46 | 4347 | 3044 | 1.567 | 7.765 | -1.712 | 1.059 | 3.415 | 0.749 | 61.5 |
| 725S250-68 | 50 | 0.925 | 3.15 | 7.347 | 2.027 | 2.819 | 0.730 | 0.889 | 7.334 | 1.795 | 53.75 | 46.60 | 4680 | 3278 | 1.567 | 7.765 | -1.712 | 1.059 | 3.415 | 0.749 | 49.9 |
| 725S250-97 | 33 | 1.296 | 4.41 | 10.130 | 2.794 | 2.796 | 0.980 | 0.869 | 10.130 | 2.794 | 55.22 | 54.99 | 8484 | 4049 | 4.468 | 10.516 | -1.675 | 1.040 | 3.373 | 0.753 | 61.3 |
| 725S250-97 | 50 | 1.296 | 4.41 | 10.130 | 2.794 | 2.796 | 0.980 | 0.869 | 10.130 | 2.686 | 80.42 | 74.21 | 10885 | 5195 | 4.468 | 10.516 | -1.675 | 1.040 | 3.373 | 0.753 | 49.6 |
| 725S250-118 | 33 | 1.562 | 5.32 | 12.057 | 3.326 | 2.778 | 1.141 | 0.855 | 12.057 | 3.326 | 65.73 | 65.53 | 10189 | 3896 | 8.032 | 12.355 | -1.647 | 1.026 | 3.341 | 0.757 | 61.2 |
| 725S250-118 | 50 | 1.562 | 5.32 | 12.057 | 3.326 | 2.778 | 1.141 | 0.855 | 12.057 | 3.301 | 98.83 | 95.30 | 15437 | 5903 | 8.032 | 12.355 | -1.647 | 1.026 | 3.341 | 0.757 | 49.4 |
| 725S300-54 | 33 | 0.811 | 2.76 | 6.781 | 1.871 | 2.892 | 0.992 | 1.106 | 6.781 | 1.677 | 33.13 | 29.26 | 2316 | 2072 | 0.866 | 10.770 | -2.240 | 1.359 | 3.821 | 0.656 | 74.8 |
| 725S300-54 | 50 | 0.811 | 2.76 | 6.781 | 1.871 | 2.892 | 0.992 | 1.106 | 6.537 | 1.523 | 45.61 | 37.97 | 2316 | 2072 | 0.866 | 10.770 | -2.240 | 1.359 | 3.821 | 0.656 | 60.7 |
| 725S300-68 | 33 | 1.014 | 3.45 | 8.419 | 2.323 | 2.882 | 1.220 | 1.097 | 8.419 | 2.142 | 42.33 | 39.60 | 4347 | 3044 | 1.718 | 13.275 | -2.222 | 1.350 | 3.801 | 0.658 | 74.7 |
| 725S300-68 | 50 | 1.014 | 3.45 | 8.419 | 2.323 | 2.882 | 1.220 | 1.097 | 8.320 | 1.966 | 58.85 | 51.87 | 4680 | 3278 | 1.718 | 13.275 | -2.222 | 1.350 | 3.801 | 0.658 | 60.5 |
| 725S300-97 | 33 | 1.423 | 4.84 | 11.648 | 3.213 | 2.861 | 1.655 | 1.078 | 11.648 | 3.170 | 62.64 | 61.89 | 8484 | 4049 | 4.907 | 18.093 | -2.184 | 1.330 | 3.757 | 0.662 | 74.6 |
| 725S300-97 | 50 | 1.423 | 4.84 | 11.648 | 3.213 | 2.861 | 1.655 | 1.078 | 11.648 | 3.024 | 90.55 | 82.64 | 10885 | 5195 | 4.907 | 18.093 | -2.184 | 1.330 | 3.757 | 0.662 | 60.3 |
| 725S300-118 | 33 | 1.717 | 5.84 | 13.902 | 3.835 | 2.845 | 1.945 | 1.064 | 13.902 | 3.835 | 75.78 | 75.59 | 10189 | 3896 | 8.830 | 21.359 | -2.156 | 1.316 | 3.725 | 0.665 | 74.6 |
| 725S300-118 | 50 | 1.717 | 5.84 | 13.902 | 3.835 | 2.845 | 1.945 | 1.064 | 13.902 | 3.689 | 110.44 | 106.32 | 15437 | 5903 | 8.830 | 21.359 | -2.156 | 1.316 | 3.725 | 0.665 | 60.2 |
| 725S350-54 | 33 | 0.896 | 3.05 | 7.727 | 2.132 | 2.937 | 1.593 | 1.333 | 7.561 | 1.863 | 36.82 | 33.77 | 2316 | 2072 | 0.957 | 18.746 | -2.861 | 1.710 | 4.311 | 0.560 | 90.6 |
| 725S350-54 | 50 | 0.896 | 3.05 | 7.727 | 2.132 | 2.937 | 1.593 | 1.333 | 7.295 | 1.697 | 50.81 | 43.87 | 2316 | 2072 | 0.957 | 18.746 | -2.861 | 1.710 | 4.311 | 0.560 | 73.5 |
| 725S350-68 | 33 | 1.121 | 3.81 | 9.608 | 2.650 | 2.928 | 1.967 | 1.325 | 9.608 | 2.493 | 49.25 | 45.61 | 4347 | 3044 | 1.899 | 23.161 | -2.843 | 1.701 | 4.290 | 0.561 | 90.5 |
| 725S350-68 | 50 | 1.121 | 3.81 | 9.608 | 2.650 | 2.928 | 1.967 | 1.325 | 9.499 | 2.276 | 68.13 | 59.81 | 4680 | 3278 | 1.899 | 23.161 | -2.843 | 1.701 | 4.290 | 0.561 | 73.4 |
| 725S350-97 | 33 | 1.576 | 5.36 | 13.332 | 3.678 | 2.909 | 2.692 | 1.307 | 13.332 | 3.668 | 72.47 | 71.06 | 8484 | 4049 | 5.433 | 31.730 | -2.804 | 1.681 | 4.247 | 0.564 | 90.5 |

Table 3 continued on next page

**TABLE 3—C-SECTION (STUD) SECTION PROPERTIES[2,3,4,5] (Continued)**

| Section | Fy | Gross Properties | | | | | | | Effective Properties | | | | | | Torsional Properties | | | | | | Lu |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Area | W | Ixx | Sxx | Rx | Iyy | Ry | Ixx | Sxx | Ma-L | Ma-D | Vag | VaNet | Jx1000 | Cw | Xo | m | Ro | β | |
| | (ksi) | (in²) | (lb/ft) | (in⁴) | (in³) | (in) | (in⁴) | (in) | (in⁴) | (in³) | (in-k) | (in-k) | (lb) | (lb) | (in⁴) | (in⁶) | (in) | (in) | (in) | | (in) |
| 725S350-97 | 50 | 1.576 | 5.36 | 13.332 | 3.678 | 2.909 | 2.692 | 1.307 | 13.332 | 3.322 | 99.45 | 94.95 | 10885 | 5195 | 5.433 | 31.730 | -2.804 | 1.681 | 4.247 | 0.564 | 73.2 |
| 725S350-118 | 33 | 1.904 | 6.48 | 15.948 | 4.400 | 2.894 | 3.186 | 1.294 | 15.948 | 4.400 | 86.94 | 86.75 | 10189 | 3896 | 9.788 | 37.602 | -2.776 | 1.666 | 4.214 | 0.566 | 90.7 |
| 725S350-118 | 50 | 1.904 | 6.48 | 15.948 | 4.400 | 2.894 | 3.186 | 1.294 | 15.948 | 4.226 | 126.54 | 121.92 | 15437 | 5903 | 9.788 | 37.602 | -2.776 | 1.666 | 4.214 | 0.566 | 73.2 |
| 800S125-30[1] | 33 | 0.330 | 1.12 | 2.606 | 0.651 | 2.808 | 0.040 | 0.349 | 2.366 | 0.430 | 8.50 | 6.46 | 347 | 347 | 0.107 | 0.531 | -0.522 | 0.351 | 2.878 | 0.967 | 26.7 |
| 800S125-33[1] | 33 | 0.366 | 1.25 | 2.881 | 0.720 | 2.806 | 0.044 | 0.347 | 2.656 | 0.507 | 10.02 | 7.60 | 474 | 474 | 0.146 | 0.582 | -0.519 | 0.349 | 2.875 | 0.967 | 26.6 |
| 800S125-43 | 33 | 0.475 | 1.62 | 3.721 | 0.930 | 2.799 | 0.056 | 0.342 | 3.581 | 0.773 | 15.27 | 11.50 | 1051 | 1051 | 0.322 | 0.735 | -0.510 | 0.344 | 2.865 | 0.968 | 26.3 |
| 800S125-54 | 33 | 0.592 | 2.01 | 4.593 | 1.148 | 2.786 | 0.066 | 0.335 | 4.566 | 1.035 | 20.46 | 16.24 | 2091 | 2091 | 0.632 | 0.889 | -0.499 | 0.338 | 2.850 | 0.969 | 26.0 |
| 800S125-54 | 50 | 0.592 | 2.01 | 4.593 | 1.148 | 2.786 | 0.066 | 0.335 | 4.431 | 0.942 | 28.21 | 20.90 | 2091 | 2091 | 0.632 | 0.889 | -0.499 | 0.338 | 2.850 | 0.969 | 21.1 |
| 800S125-68 | 33 | 0.738 | 2.51 | 5.653 | 1.413 | 2.768 | 0.078 | 0.324 | 5.644 | 1.375 | 27.18 | 22.84 | 4221 | 3367 | 1.250 | 1.068 | -0.485 | 0.330 | 2.829 | 0.971 | 25.6 |
| 800S125-68 | 50 | 0.738 | 2.51 | 5.653 | 1.413 | 2.768 | 0.078 | 0.324 | 5.632 | 1.287 | 38.54 | 29.74 | 4221 | 3367 | 1.250 | 1.068 | -0.485 | 0.330 | 2.829 | 0.971 | 20.8 |
| 800S137-33[1] | 33 | 0.388 | 1.32 | 3.198 | 0.799 | 2.873 | 0.073 | 0.435 | 2.998 | 0.622 | 12.30 | 10.29 | 474 | 474 | 0.155 | 0.957 | -0.696 | 0.460 | 2.987 | 0.946 | 32.5 |
| 800S137-43 | 33 | 0.503 | 1.71 | 4.134 | 1.033 | 2.866 | 0.093 | 0.430 | 4.001 | 0.896 | 17.70 | 15.09 | 1051 | 1051 | 0.341 | 1.214 | -0.687 | 0.454 | 2.978 | 0.947 | 32.2 |
| 800S137-54 | 33 | 0.627 | 2.13 | 5.110 | 1.277 | 2.855 | 0.112 | 0.423 | 5.077 | 1.179 | 23.29 | 20.73 | 2091 | 2091 | 0.670 | 1.478 | -0.676 | 0.448 | 2.964 | 0.948 | 32.0 |
| 800S137-54 | 50 | 0.627 | 2.13 | 5.110 | 1.277 | 2.855 | 0.112 | 0.423 | 4.974 | 1.083 | 32.42 | 27.00 | 2091 | 2091 | 0.670 | 1.478 | -0.676 | 0.448 | 2.964 | 0.948 | 25.9 |
| 800S137-68 | 33 | 0.782 | 2.66 | 6.303 | 1.576 | 2.839 | 0.134 | 0.414 | 6.303 | 1.541 | 30.45 | 28.33 | 4221 | 3367 | 1.325 | 1.789 | -0.661 | 0.440 | 2.944 | 0.950 | 31.6 |
| 800S137-68 | 50 | 0.782 | 2.66 | 6.303 | 1.576 | 2.839 | 0.134 | 0.414 | 6.285 | 1.468 | 43.96 | 37.37 | 4221 | 3367 | 1.325 | 1.789 | -0.661 | 0.440 | 2.944 | 0.950 | 25.6 |
| 800S137-97 | 33 | 1.093 | 3.72 | 8.597 | 2.149 | 2.805 | 0.169 | 0.394 | 8.597 | 2.149 | 42.47 | 42.33 | 8843 | 4824 | 3.767 | 2.349 | -0.630 | 0.423 | 2.902 | 0.953 | 31.0 |
| 800S137-97 | 50 | 1.093 | 3.72 | 8.597 | 2.149 | 2.805 | 0.169 | 0.394 | 8.597 | 2.149 | 64.35 | 60.24 | 10885 | 5938 | 3.767 | 2.349 | -0.630 | 0.423 | 2.902 | 0.953 | 25.0 |
| 800S162-33[1] | 33 | 0.413 | 1.41 | 3.582 | 0.896 | 2.943 | 0.125 | 0.550 | 3.384 | 0.710 | 14.03 | 12.21 | 474 | 474 | 0.165 | 1.630 | -0.936 | 0.607 | 3.137 | 0.911 | 40.1 |
| 800S162-43 | 33 | 0.537 | 1.83 | 4.633 | 1.158 | 2.937 | 0.160 | 0.546 | 4.500 | 1.019 | 20.14 | 17.71 | 1051 | 1051 | 0.364 | 2.076 | -0.926 | 0.601 | 3.128 | 0.912 | 39.8 |
| 800S162-54 | 33 | 0.670 | 2.28 | 5.736 | 1.434 | 2.927 | 0.194 | 0.539 | 5.702 | 1.334 | 26.36 | 24.10 | 2091 | 2091 | 0.715 | 2.539 | -0.914 | 0.594 | 3.113 | 0.914 | 39.6 |
| 800S162-54 | 50 | 0.670 | 2.28 | 5.736 | 1.434 | 2.927 | 0.194 | 0.539 | 5.600 | 1.229 | 36.79 | 31.51 | 2091 | 2091 | 0.715 | 2.539 | -0.914 | 0.594 | 3.113 | 0.914 | 32.1 |
| 800S162-68 | 33 | 0.836 | 2.84 | 7.089 | 1.772 | 2.913 | 0.235 | 0.530 | 7.089 | 1.737 | 34.32 | 32.63 | 4221 | 3367 | 1.416 | 3.093 | -0.899 | 0.586 | 3.094 | 0.916 | 39.3 |
| 800S162-68 | 50 | 0.836 | 2.84 | 7.089 | 1.772 | 2.913 | 0.235 | 0.530 | 7.070 | 1.663 | 49.80 | 43.21 | 4221 | 3367 | 1.416 | 3.093 | -0.899 | 0.586 | 3.094 | 0.916 | 31.9 |
| 800S162-97 | 33 | 1.169 | 3.98 | 9.713 | 2.428 | 2.883 | 0.305 | 0.510 | 9.713 | 2.428 | 47.98 | 47.84 | 8843 | 4824 | 4.030 | 4.114 | -0.866 | 0.568 | 3.053 | 0.919 | 38.8 |
| 800S162-97 | 50 | 1.169 | 3.98 | 9.713 | 2.428 | 2.883 | 0.305 | 0.510 | 9.713 | 2.428 | 72.70 | 68.86 | 10885 | 5938 | 4.030 | 4.114 | -0.866 | 0.568 | 3.053 | 0.919 | 31.4 |
| 800S162-118 | 33 | 1.407 | 4.79 | 11.504 | 2.876 | 2.860 | 0.345 | 0.496 | 11.504 | 2.876 | 56.83 | 56.66 | 11341 | 4971 | 7.234 | 4.766 | -0.842 | 0.556 | 3.022 | 0.922 | 38.4 |
| 800S162-118 | 50 | 1.407 | 4.79 | 11.504 | 2.876 | 2.860 | 0.345 | 0.496 | 11.504 | 2.876 | 86.11 | 85.85 | 16235 | 7115 | 7.234 | 4.766 | -0.842 | 0.556 | 3.022 | 0.922 | 31.0 |
| 800S200-33[1] | 33 | 0.448 | 1.52 | 4.096 | 1.024 | 3.023 | 0.227 | 0.712 | 4.096 | 0.816 | 16.12 | 14.15 | 474 | 474 | 0.179 | 2.971 | -1.288 | 0.817 | 3.363 | 0.853 | 50.6 |
| 800S200-43 | 33 | 0.582 | 1.98 | 5.302 | 1.325 | 3.018 | 0.292 | 0.708 | 5.302 | 1.293 | 25.54 | 20.40 | 1051 | 1051 | 0.395 | 3.797 | -1.277 | 0.811 | 3.353 | 0.855 | 50.3 |
| 800S200-54 | 33 | 0.726 | 2.47 | 6.573 | 1.643 | 3.009 | 0.357 | 0.701 | 6.573 | 1.643 | 32.47 | 27.65 | 2091 | 2091 | 0.775 | 4.663 | -1.265 | 0.804 | 3.338 | 0.856 | 50.1 |
| 800S200-54 | 50 | 0.726 | 2.47 | 6.573 | 1.643 | 3.009 | 0.357 | 0.701 | 6.573 | 1.499 | 44.87 | 36.16 | 2091 | 2091 | 0.775 | 4.663 | -1.265 | 0.804 | 3.338 | 0.856 | 40.7 |
| 800S200-68 | 33 | 0.907 | 3.09 | 8.140 | 2.035 | 2.996 | 0.435 | 0.692 | 8.140 | 2.035 | 40.21 | 37.31 | 4221 | 3367 | 1.537 | 5.712 | -1.248 | 0.796 | 3.319 | 0.859 | 49.9 |
| 800S200-68 | 50 | 0.907 | 3.09 | 8.140 | 2.035 | 2.996 | 0.435 | 0.692 | 8.140 | 1.993 | 59.66 | 49.37 | 4221 | 3367 | 1.537 | 5.712 | -1.248 | 0.796 | 3.319 | 0.859 | 40.4 |
| 800S200-97 | 33 | 1.271 | 4.32 | 11.203 | 2.801 | 2.969 | 0.576 | 0.673 | 11.203 | 2.801 | 55.35 | 55.20 | 8843 | 4824 | 4.381 | 7.684 | -1.214 | 0.777 | 3.278 | 0.863 | 49.5 |
| 800S200-97 | 50 | 1.271 | 4.32 | 11.203 | 2.801 | 2.969 | 0.576 | 0.673 | 11.203 | 2.801 | 83.86 | 78.32 | 10885 | 5938 | 4.381 | 7.684 | -1.214 | 0.777 | 3.278 | 0.863 | 40.0 |
| 800S200-118 | 33 | 1.531 | 5.21 | 13.316 | 3.329 | 2.949 | 0.665 | 0.659 | 13.316 | 3.329 | 65.78 | 65.61 | 11341 | 4971 | 7.872 | 8.981 | -1.188 | 0.764 | 3.247 | 0.866 | 49.2 |
| 800S200-118 | 50 | 1.531 | 5.21 | 13.316 | 3.329 | 2.949 | 0.665 | 0.659 | 13.316 | 3.329 | 99.67 | 99.41 | 16235 | 7115 | 7.872 | 8.981 | -1.188 | 0.764 | 3.247 | 0.866 | 39.7 |
| 800S250-43 | 33 | 0.627 | 2.13 | 6.015 | 1.504 | 3.097 | 0.500 | 0.893 | 6.015 | 1.313 | 25.95 | 21.47 | 1051 | 1051 | 0.425 | 6.374 | -1.675 | 1.043 | 3.632 | 0.787 | 61.5 |
| 800S250-54 | 33 | 0.783 | 2.66 | 7.465 | 1.866 | 3.088 | 0.614 | 0.886 | 7.465 | 1.712 | 33.82 | 29.21 | 2091 | 2091 | 0.836 | 7.850 | -1.661 | 1.036 | 3.617 | 0.789 | 61.4 |
| 800S250-54 | 50 | 0.783 | 2.66 | 7.465 | 1.866 | 3.088 | 0.614 | 0.886 | 7.378 | 1.525 | 45.66 | 37.91 | 2091 | 2091 | 0.836 | 7.850 | -1.661 | 1.036 | 3.617 | 0.789 | 49.8 |
| 800S250-68 | 33 | 0.978 | 3.33 | 9.261 | 2.315 | 3.077 | 0.752 | 0.877 | 9.261 | 2.240 | 44.26 | 39.66 | 4221 | 3367 | 1.658 | 9.652 | -1.644 | 1.027 | 3.597 | 0.791 | 61.2 |
| 800S250-68 | 50 | 0.978 | 3.33 | 9.261 | 2.315 | 3.077 | 0.752 | 0.877 | 9.240 | 2.059 | 61.65 | 51.97 | 4221 | 3367 | 1.658 | 9.652 | -1.644 | 1.027 | 3.597 | 0.791 | 49.6 |
| 800S250-97 | 33 | 1.372 | 4.67 | 12.789 | 3.197 | 3.053 | 1.009 | 0.857 | 12.789 | 3.197 | 63.18 | 62.23 | 8843 | 4824 | 4.731 | 13.091 | -1.607 | 1.008 | 3.555 | 0.796 | 60.8 |
| 800S250-97 | 50 | 1.372 | 4.67 | 12.789 | 3.197 | 3.053 | 1.009 | 0.857 | 12.789 | 3.076 | 92.09 | 83.29 | 10885 | 5938 | 4.731 | 13.091 | -1.607 | 1.008 | 3.555 | 0.796 | 49.2 |
| 800S250-118 | 33 | 1.655 | 5.63 | 15.242 | 3.810 | 3.035 | 1.175 | 0.843 | 15.242 | 3.810 | 75.29 | 75.12 | 11341 | 4971 | 8.511 | 15.395 | -1.580 | 0.994 | 3.524 | 0.799 | 60.7 |
| 800S250-118 | 50 | 1.655 | 5.63 | 15.242 | 3.810 | 3.035 | 1.175 | 0.843 | 15.242 | 3.782 | 113.23 | 107.44 | 16235 | 7115 | 8.511 | 15.395 | -1.580 | 0.994 | 3.524 | 0.799 | 49.0 |
| 800S300-54 | 33 | 0.853 | 2.90 | 8.514 | 2.128 | 3.158 | 1.023 | 1.095 | 8.514 | 1.914 | 37.83 | 32.58 | 2091 | 2091 | 0.911 | 13.310 | -2.159 | 1.322 | 3.980 | 0.706 | 74.5 |
| 800S300-54 | 50 | 0.853 | 2.90 | 8.514 | 2.128 | 3.158 | 1.023 | 1.095 | 8.258 | 1.673 | 50.10 | 42.20 | 2091 | 2091 | 0.911 | 13.310 | -2.159 | 1.322 | 3.980 | 0.706 | 60.4 |
| 800S300-68 | 33 | 1.067 | 3.63 | 10.577 | 2.644 | 3.148 | 1.259 | 1.086 | 10.577 | 2.443 | 48.28 | 44.23 | 4221 | 3367 | 1.809 | 16.415 | -2.141 | 1.313 | 3.959 | 0.707 | 74.3 |
| 800S300-68 | 50 | 1.067 | 3.63 | 10.577 | 2.644 | 3.148 | 1.259 | 1.086 | 10.446 | 2.250 | 67.36 | 57.80 | 4221 | 3367 | 1.809 | 16.415 | -2.141 | 1.313 | 3.959 | 0.707 | 60.3 |
| 800S300-97 | 33 | 1.499 | 5.10 | 14.654 | 3.664 | 3.126 | 1.708 | 1.067 | 14.654 | 3.615 | 71.43 | 69.52 | 8843 | 4824 | 5.170 | 22.406 | -2.104 | 1.293 | 3.916 | 0.711 | 74.1 |
| 800S300-97 | 50 | 1.499 | 5.10 | 14.654 | 3.664 | 3.126 | 1.708 | 1.067 | 14.654 | 3.452 | 103.35 | 92.57 | 10885 | 5938 | 5.170 | 22.406 | -2.104 | 1.293 | 3.916 | 0.711 | 60.0 |
| 800S300-118 | 33 | 1.810 | 6.16 | 17.508 | 4.377 | 3.110 | 2.007 | 1.053 | 17.508 | 4.377 | 86.49 | 86.32 | 11341 | 4971 | 9.309 | 26.478 | -2.076 | 1.279 | 3.884 | 0.714 | 74.0 |
| 800S300-118 | 50 | 1.810 | 6.16 | 17.508 | 4.377 | 3.110 | 2.007 | 1.053 | 17.508 | 4.212 | 126.12 | 119.51 | 16235 | 7115 | 9.309 | 26.478 | -2.076 | 1.279 | 3.884 | 0.714 | 59.8 |
| 800S350-54 | 33 | 0.938 | 3.19 | 9.683 | 2.421 | 3.212 | 1.646 | 1.325 | 9.477 | 2.125 | 41.98 | 37.60 | 2091 | 2091 | 1.002 | 22.897 | -2.766 | 1.668 | 4.441 | 0.612 | 90.0 |
| 800S350-54 | 50 | 0.938 | 3.19 | 9.683 | 2.421 | 3.212 | 1.646 | 1.325 | 9.191 | 1.869 | 55.96 | 48.76 | 2091 | 2091 | 1.002 | 22.897 | -2.766 | 1.668 | 4.441 | 0.612 | 73.1 |
| 800S350-68 | 33 | 1.174 | 4.00 | 12.046 | 3.012 | 3.203 | 2.034 | 1.316 | 12.046 | 2.837 | 56.07 | 50.91 | 4221 | 3367 | 1.990 | 28.308 | -2.748 | 1.658 | 4.421 | 0.614 | 89.9 |

Table 3 continued on next page

**TABLE 3—C-SECTION (STUD) SECTION PROPERTIES[2,3,4,5] (Continued)**

| Section | Fy | Gross Properties | | | | | | | Effective Properties | | | | | | Torsional Properties | | | | | | Lu |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Area | W | Ixx | Sxx | Rx | Iyy | Ry | Ixx | Sxx | Ma-L | Ma-D | Vag | VaNet | Jx1000 | Cw | Xo | m | Ro | β | |
| | (ksi) | ($in^2$) | (lb/ft) | ($in^4$) | ($in^3$) | (in) | ($in^4$) | (in) | ($in^4$) | ($in^3$) | (in-k) | (in-k) | (lb) | (lb) | ($in^4$) | ($in^6$) | (in) | (in) | (in) | | (in) |
| 800S350-68 | 50 | 1.174 | 4.00 | 12.046 | 3.012 | 3.203 | 2.034 | 1.316 | 11.909 | 2.596 | 77.73 | 66.61 | 4221 | 3367 | 1.990 | 28.308 | -2.748 | 1.658 | 4.421 | 0.614 | 72.9 |
| 800S350-97 | 33 | 1.652 | 5.62 | 16.737 | 4.184 | 3.183 | 2.784 | 1.298 | 16.737 | 4.173 | 82.45 | 79.72 | 8843 | 4824 | 5.696 | 38.834 | -2.710 | 1.639 | 4.377 | 0.617 | 89.8 |
| 800S350-97 | 50 | 1.652 | 5.62 | 16.737 | 4.184 | 3.183 | 2.784 | 1.298 | 16.737 | 3.785 | 113.34 | 106.21 | 10885 | 5938 | 5.696 | 38.834 | -2.710 | 1.639 | 4.377 | 0.617 | 72.7 |
| 800S350-118 | 33 | 1.997 | 6.79 | 20.041 | 5.010 | 3.168 | 3.295 | 1.285 | 20.041 | 5.010 | 99.00 | 98.83 | 11341 | 4971 | 10.267 | 46.068 | -2.682 | 1.624 | 4.345 | 0.619 | 89.9 |
| 800S350-118 | 50 | 1.997 | 6.79 | 20.041 | 5.010 | 3.168 | 3.295 | 1.285 | 20.041 | 4.812 | 144.09 | 136.79 | 16235 | 7115 | 10.267 | 46.068 | -2.682 | 1.624 | 4.345 | 0.619 | 72.6 |
| 925S137-43 | 33 | 0.560 | 1.90 | 5.941 | 1.284 | 3.258 | 0.096 | 0.414 | 5.612 | 1.053 | 20.80 | 17.18 | 905 | 905 | 0.379 | 1.688 | -0.633 | 0.424 | 3.345 | 0.964 | 31.6 |
| 925S137-54 | 33 | 0.698 | 2.37 | 7.352 | 1.590 | 3.246 | 0.116 | 0.407 | 7.175 | 1.396 | 27.58 | 23.85 | 1800 | 1800 | 0.745 | 2.055 | -0.623 | 0.418 | 3.330 | 0.965 | 31.3 |
| 925S137-54 | 50 | 0.698 | 2.37 | 7.352 | 1.590 | 3.246 | 0.116 | 0.407 | 6.993 | 1.274 | 38.15 | 30.84 | 1800 | 1800 | 0.745 | 2.055 | -0.623 | 0.418 | 3.330 | 0.965 | 25.4 |
| 925S137-68 | 33 | 0.871 | 2.96 | 9.084 | 1.964 | 3.229 | 0.138 | 0.398 | 9.084 | 1.846 | 36.47 | 32.99 | 3628 | 3483 | 1.476 | 2.491 | -0.609 | 0.410 | 3.310 | 0.966 | 30.9 |
| 925S137-68 | 50 | 0.871 | 2.96 | 9.084 | 1.964 | 3.229 | 0.138 | 0.398 | 8.905 | 1.743 | 52.19 | 43.14 | 3628 | 3483 | 1.476 | 2.491 | -0.609 | 0.410 | 3.310 | 0.966 | 25.1 |
| 925S137-97 | 33 | 1.220 | 4.15 | 12.437 | 2.689 | 3.193 | 0.174 | 0.378 | 12.437 | 2.689 | 53.14 | 52.83 | 8843 | 5830 | 4.205 | 3.275 | -0.580 | 0.394 | 3.267 | 0.968 | 30.2 |
| 925S137-97 | 50 | 1.220 | 4.15 | 12.437 | 2.689 | 3.193 | 0.174 | 0.378 | 12.437 | 2.637 | 78.95 | 70.85 | 10710 | 7061 | 4.205 | 3.275 | -0.580 | 0.394 | 3.267 | 0.968 | 24.4 |
| 925S162-43 | 33 | 0.593 | 2.02 | 6.616 | 1.430 | 3.339 | 0.165 | 0.528 | 6.288 | 1.196 | 23.64 | 20.34 | 905 | 905 | 0.402 | 2.877 | -0.859 | 0.564 | 3.488 | 0.939 | 39.2 |
| 925S162-54 | 33 | 0.740 | 2.52 | 8.198 | 1.773 | 3.328 | 0.201 | 0.521 | 8.019 | 1.576 | 31.15 | 27.93 | 1800 | 1800 | 0.791 | 3.521 | -0.848 | 0.558 | 3.473 | 0.940 | 38.9 |
| 925S162-54 | 50 | 0.740 | 2.52 | 8.198 | 1.773 | 3.328 | 0.201 | 0.521 | 7.841 | 1.443 | 43.22 | 36.27 | 1800 | 1800 | 0.791 | 3.521 | -0.848 | 0.558 | 3.473 | 0.940 | 31.6 |
| 925S162-68 | 33 | 0.925 | 3.15 | 10.148 | 2.194 | 3.313 | 0.242 | 0.512 | 10.148 | 2.074 | 40.98 | 38.22 | 3628 | 3483 | 1.567 | 4.293 | -0.833 | 0.550 | 3.454 | 0.942 | 38.6 |
| 925S162-68 | 50 | 0.925 | 3.15 | 10.148 | 2.194 | 3.313 | 0.242 | 0.512 | 9.965 | 1.970 | 58.99 | 50.20 | 3628 | 3483 | 1.567 | 4.293 | -0.833 | 0.550 | 3.454 | 0.942 | 31.3 |
| 925S162-97 | 33 | 1.296 | 4.41 | 13.947 | 3.016 | 3.280 | 0.315 | 0.493 | 13.947 | 3.016 | 59.59 | 59.47 | 8843 | 5830 | 4.468 | 5.719 | -0.802 | 0.533 | 3.413 | 0.945 | 38.0 |
| 925S162-97 | 50 | 1.296 | 4.41 | 13.947 | 3.016 | 3.280 | 0.315 | 0.493 | 13.947 | 2.962 | 88.70 | 81.36 | 10710 | 7061 | 4.468 | 5.719 | -0.802 | 0.533 | 3.413 | 0.945 | 30.8 |
| 925S162-118 | 33 | 1.562 | 5.32 | 16.559 | 3.580 | 3.256 | 0.357 | 0.478 | 16.559 | 3.580 | 70.75 | 70.60 | 13189 | 7010 | 8.032 | 6.634 | -0.779 | 0.521 | 3.382 | 0.947 | 37.5 |
| 925S162-118 | 50 | 1.562 | 5.32 | 16.559 | 3.580 | 3.256 | 0.357 | 0.478 | 16.559 | 3.580 | 107.19 | 105.14 | 16235 | 8628 | 8.032 | 6.634 | -0.779 | 0.521 | 3.382 | 0.947 | 30.3 |
| 925S200-43 | 33 | 0.639 | 2.17 | 7.519 | 1.626 | 3.431 | 0.303 | 0.689 | 7.204 | 1.351 | 26.70 | 23.64 | 905 | 905 | 0.433 | 5.240 | -1.193 | 0.767 | 3.697 | 0.896 | 49.7 |
| 925S200-54 | 33 | 0.797 | 2.71 | 9.329 | 2.017 | 3.422 | 0.371 | 0.682 | 9.147 | 1.818 | 35.92 | 32.25 | 1800 | 1800 | 0.851 | 6.438 | -1.180 | 0.761 | 3.683 | 0.897 | 49.5 |
| 925S200-54 | 50 | 0.797 | 2.71 | 9.329 | 2.017 | 3.422 | 0.371 | 0.682 | 9.009 | 1.567 | 46.91 | 41.95 | 1800 | 1800 | 0.851 | 6.438 | -1.180 | 0.761 | 3.683 | 0.897 | 40.1 |
| 925S200-68 | 33 | 0.996 | 3.39 | 11.568 | 2.501 | 3.408 | 0.451 | 0.673 | 11.568 | 2.379 | 47.00 | 43.87 | 3628 | 3483 | 1.688 | 7.893 | -1.164 | 0.752 | 3.664 | 0.899 | 49.2 |
| 925S200-68 | 50 | 0.996 | 3.39 | 11.568 | 2.501 | 3.408 | 0.451 | 0.673 | 11.398 | 2.217 | 66.36 | 57.67 | 3628 | 3483 | 1.688 | 7.893 | -1.164 | 0.752 | 3.664 | 0.899 | 39.9 |
| 925S200-97 | 33 | 1.398 | 4.76 | 15.963 | 3.451 | 3.379 | 0.598 | 0.654 | 15.963 | 3.451 | 68.20 | 68.08 | 8843 | 5830 | 4.819 | 10.637 | -1.131 | 0.735 | 3.623 | 0.902 | 48.7 |
| 925S200-97 | 50 | 1.398 | 4.76 | 15.963 | 3.451 | 3.379 | 0.598 | 0.654 | 15.963 | 3.397 | 101.71 | 92.71 | 10710 | 7061 | 4.819 | 10.637 | -1.131 | 0.735 | 3.623 | 0.902 | 39.4 |
| 925S200-118 | 33 | 1.686 | 5.74 | 19.010 | 4.110 | 3.358 | 0.690 | 0.640 | 19.010 | 4.110 | 81.22 | 81.07 | 13189 | 7010 | 8.670 | 12.449 | -1.107 | 0.722 | 3.593 | 0.905 | 48.3 |
| 925S200-118 | 50 | 1.686 | 5.74 | 19.010 | 4.110 | 3.358 | 0.690 | 0.640 | 19.010 | 4.110 | 123.07 | 119.57 | 16235 | 8628 | 8.670 | 12.449 | -1.107 | 0.722 | 3.593 | 0.905 | 39.0 |
| 925S250-43 | 33 | 0.684 | 2.33 | 8.474 | 1.832 | 3.521 | 0.520 | 0.872 | 8.474 | 1.502 | 29.69 | 24.96 | 905 | 905 | 0.464 | 8.801 | -1.573 | 0.993 | 3.953 | 0.842 | 61.0 |
| 925S250-54 | 33 | 0.853 | 2.90 | 10.525 | 2.276 | 3.512 | 0.640 | 0.866 | 10.525 | 2.096 | 41.42 | 34.14 | 1800 | 1800 | 0.911 | 10.847 | -1.559 | 0.986 | 3.939 | 0.843 | 60.8 |
| 925S250-54 | 50 | 0.853 | 2.90 | 10.525 | 2.276 | 3.512 | 0.640 | 0.866 | 10.469 | 1.746 | 52.27 | 44.14 | 1800 | 1800 | 0.911 | 10.847 | -1.559 | 0.986 | 3.939 | 0.843 | 49.3 |
| 925S250-68 | 33 | 1.067 | 3.63 | 13.070 | 2.826 | 3.499 | 0.783 | 0.856 | 13.070 | 2.737 | 54.09 | 46.62 | 3628 | 3483 | 1.809 | 13.349 | -1.542 | 0.977 | 3.919 | 0.845 | 60.6 |
| 925S250-68 | 50 | 1.067 | 3.63 | 13.070 | 2.826 | 3.499 | 0.783 | 0.856 | 13.031 | 2.529 | 75.73 | 60.83 | 3628 | 3483 | 1.809 | 13.349 | -1.542 | 0.977 | 3.919 | 0.845 | 49.1 |
| 925S250-97 | 33 | 1.499 | 5.10 | 18.090 | 3.911 | 3.473 | 1.050 | 0.837 | 18.090 | 3.911 | 77.29 | 74.01 | 8843 | 5830 | 5.170 | 18.137 | -1.507 | 0.959 | 3.878 | 0.849 | 60.1 |
| 925S250-97 | 50 | 1.499 | 5.10 | 18.090 | 3.911 | 3.473 | 1.050 | 0.837 | 18.090 | 3.769 | 112.83 | 98.49 | 10710 | 7061 | 5.170 | 18.137 | -1.507 | 0.959 | 3.878 | 0.849 | 48.7 |
| 925S250-118 | 33 | 1.810 | 6.16 | 21.596 | 4.669 | 3.454 | 1.224 | 0.822 | 21.596 | 4.669 | 92.27 | 92.12 | 13189 | 7010 | 9.309 | 21.358 | -1.481 | 0.945 | 3.847 | 0.852 | 59.8 |
| 925S250-118 | 50 | 1.810 | 6.16 | 21.596 | 4.669 | 3.454 | 1.224 | 0.822 | 21.596 | 4.636 | 138.80 | 127.92 | 16235 | 8628 | 9.309 | 21.358 | -1.481 | 0.945 | 3.847 | 0.852 | 48.4 |
| 925S300-54 | 33 | 0.924 | 3.14 | 11.940 | 2.582 | 3.594 | 1.069 | 1.076 | 11.940 | 2.335 | 46.13 | 38.11 | 1800 | 1800 | 0.987 | 18.277 | -2.038 | 1.265 | 4.270 | 0.772 | 73.9 |
| 925S300-54 | 50 | 0.924 | 3.14 | 11.940 | 2.582 | 3.594 | 1.069 | 1.076 | 11.679 | 1.923 | 57.58 | 49.21 | 1800 | 1800 | 0.987 | 18.277 | -2.038 | 1.265 | 4.270 | 0.772 | 60.0 |
| 925S300-68 | 33 | 1.156 | 3.94 | 14.848 | 3.210 | 3.583 | 1.315 | 1.066 | 14.848 | 2.976 | 58.80 | 51.97 | 3628 | 3483 | 1.960 | 22.561 | -2.021 | 1.256 | 4.250 | 0.774 | 73.7 |
| 925S300-68 | 50 | 1.156 | 3.94 | 14.848 | 3.210 | 3.583 | 1.315 | 1.066 | 14.653 | 2.754 | 82.45 | 67.68 | 3628 | 3483 | 1.960 | 22.561 | -2.021 | 1.256 | 4.250 | 0.774 | 59.8 |
| 925S300-97 | 33 | 1.627 | 5.53 | 20.613 | 4.457 | 3.560 | 1.785 | 1.047 | 20.613 | 4.398 | 86.91 | 82.45 | 8843 | 5830 | 5.608 | 30.851 | -1.984 | 1.237 | 4.208 | 0.778 | 73.4 |
| 925S300-97 | 50 | 1.627 | 5.53 | 20.613 | 4.457 | 3.560 | 1.785 | 1.047 | 20.613 | 4.207 | 125.97 | 109.27 | 10710 | 7061 | 5.608 | 30.851 | -1.984 | 1.237 | 4.208 | 0.778 | 59.4 |
| 925S300-118 | 33 | 1.966 | 6.69 | 24.664 | 5.333 | 3.542 | 2.098 | 1.033 | 24.664 | 5.333 | 105.38 | 105.21 | 13189 | 7010 | 10.107 | 36.507 | -1.957 | 1.223 | 4.177 | 0.780 | 73.2 |
| 925S300-118 | 50 | 1.966 | 6.69 | 24.664 | 5.333 | 3.542 | 2.098 | 1.033 | 24.664 | 5.137 | 153.81 | 141.86 | 16235 | 8628 | 10.107 | 36.507 | -1.957 | 1.223 | 4.177 | 0.780 | 59.2 |
| 925S350-54 | 33 | 1.009 | 3.43 | 13.534 | 2.926 | 3.662 | 1.726 | 1.308 | 13.258 | 2.575 | 50.89 | 44.01 | 1800 | 1800 | 1.078 | 30.988 | -2.624 | 1.602 | 4.691 | 0.687 | 89.3 |
| 925S350-54 | 50 | 1.009 | 3.43 | 13.534 | 2.926 | 3.662 | 1.726 | 1.308 | 12.946 | 2.156 | 64.54 | 56.92 | 1800 | 1800 | 1.078 | 30.988 | -2.624 | 1.602 | 4.691 | 0.687 | 72.5 |
| 925S350-68 | 33 | 1.263 | 4.30 | 16.852 | 3.644 | 3.652 | 2.132 | 1.299 | 16.852 | 3.443 | 68.03 | 59.83 | 3628 | 3483 | 2.141 | 38.345 | -2.606 | 1.593 | 4.671 | 0.689 | 89.2 |
| 925S350-68 | 50 | 1.263 | 4.30 | 16.852 | 3.644 | 3.652 | 2.132 | 1.299 | 16.660 | 3.162 | 94.66 | 78.03 | 3628 | 3483 | 2.141 | 38.345 | -2.606 | 1.593 | 4.671 | 0.689 | 72.3 |
| 925S350-97 | 33 | 1.779 | 6.05 | 23.456 | 5.072 | 3.631 | 2.920 | 1.281 | 23.456 | 5.057 | 99.93 | 94.39 | 8843 | 5830 | 6.134 | 52.700 | -2.569 | 1.574 | 4.629 | 0.692 | 88.9 |
| 925S350-97 | 50 | 1.779 | 6.05 | 23.456 | 5.072 | 3.631 | 2.920 | 1.281 | 23.456 | 4.602 | 137.79 | 125.22 | 10710 | 7061 | 6.134 | 52.700 | -2.569 | 1.574 | 4.629 | 0.692 | 72.0 |
| 925S350-118 | 33 | 2.152 | 7.32 | 28.123 | 6.081 | 3.615 | 3.457 | 1.267 | 28.123 | 6.081 | 120.16 | 120.01 | 13189 | 7010 | 11.065 | 62.601 | -2.541 | 1.560 | 4.597 | 0.694 | 88.8 |
| 925S350-118 | 50 | 2.152 | 7.32 | 28.123 | 6.081 | 3.615 | 3.457 | 1.267 | 28.123 | 5.842 | 174.92 | 162.01 | 16235 | 8628 | 11.065 | 62.601 | -2.541 | 1.560 | 4.597 | 0.694 | 71.8 |
| 1000S137-43[1] | 33 | 0.593 | 2.02 | 7.232 | 1.446 | 3.491 | 0.097 | 0.405 | 6.727 | 1.147 | 22.66 | 18.32 | 836 | 836 | 0.402 | 2.014 | -0.605 | 0.408 | 3.566 | 0.971 | 31.2 |
| 1000S137-54 | 33 | 0.740 | 2.52 | 8.956 | 1.791 | 3.478 | 0.117 | 0.398 | 8.636 | 1.526 | 30.15 | 25.58 | 1661 | 1661 | 0.791 | 2.454 | -0.595 | 0.402 | 3.551 | 0.972 | 30.9 |
| 1000S137-54 | 50 | 0.740 | 2.52 | 8.956 | 1.791 | 3.478 | 0.117 | 0.398 | 8.393 | 1.389 | 41.58 | 32.95 | 1661 | 1661 | 0.791 | 2.454 | -0.595 | 0.402 | 3.551 | 0.972 | 25.1 |

Table 3 continued on next page

**TABLE 3—C-SECTION (STUD) SECTION PROPERTIES[2,3,4,5]**

| Section | Fy (ksi) | Gross Properties | | | | | | | Effective Properties | | | | | | Torsional Properties | | | | | | Lu (in) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Area | W | Ixx | Sxx | Rx | Iyy | Ry | Ixx | Sxx | Ma-L | Ma-D | Vag | VaNet | Jx1000 | Cw | Xo | m | Ro | β | |
| | | ($in^2$) | (lb/ft) | ($in^4$) | ($in^3$) | (in) | ($in^4$) | (in) | ($in^4$) | ($in^3$) | (in-k) | (in-k) | (lb) | (lb) | ($in^4$) | ($in^6$) | (in) | (in) | (in) | | |
| 1000S137-68 | 33 | 0.925 | 3.15 | 11.076 | 2.215 | 3.461 | 0.140 | 0.389 | 11.010 | 2.029 | 40.09 | 35.61 | 3345 | 3345 | 1.567 | 2.975 | -0.581 | 0.394 | 3.531 | 0.973 | 30.5 |
| 1000S137-68 | 50 | 0.925 | 3.15 | 11.076 | 2.215 | 3.461 | 0.140 | 0.389 | 10.732 | 1.908 | 57.13 | 46.33 | 3345 | 3345 | 1.567 | 2.975 | -0.581 | 0.394 | 3.531 | 0.973 | 24.8 |
| 1000S137-97 | 33 | 1.296 | 4.41 | 15.192 | 3.038 | 3.424 | 0.177 | 0.369 | 15.192 | 3.038 | 60.04 | 57.72 | 8843 | 6434 | 4.468 | 3.913 | -0.554 | 0.379 | 3.488 | 0.975 | 29.8 |
| 1000S137-97 | 50 | 1.296 | 4.41 | 15.192 | 3.038 | 3.424 | 0.177 | 0.369 | 15.192 | 2.917 | 87.32 | 76.86 | 9864 | 7177 | 4.468 | 3.913 | -0.554 | 0.379 | 3.488 | 0.975 | 24.1 |
| 1000S162-43[1] | 33 | 0.627 | 2.13 | 8.025 | 1.605 | 3.577 | 0.168 | 0.518 | 7.523 | 1.302 | 25.74 | 21.80 | 836 | 836 | 0.425 | 3.430 | -0.823 | 0.545 | 3.707 | 0.951 | 38.8 |
| 1000S162-54 | 33 | 0.783 | 2.66 | 9.950 | 1.990 | 3.565 | 0.204 | 0.511 | 9.627 | 1.722 | 34.02 | 30.08 | 1661 | 1661 | 0.836 | 4.198 | -0.812 | 0.538 | 3.692 | 0.952 | 38.6 |
| 1000S162-54 | 50 | 0.783 | 2.66 | 9.950 | 1.990 | 3.565 | 0.204 | 0.511 | 9.391 | 1.572 | 47.07 | 38.92 | 1661 | 1661 | 0.836 | 4.198 | -0.812 | 0.538 | 3.692 | 0.952 | 31.3 |
| 1000S162-68 | 33 | 0.978 | 3.33 | 12.325 | 2.465 | 3.550 | 0.246 | 0.502 | 12.256 | 2.276 | 44.98 | 41.41 | 3345 | 3345 | 1.658 | 5.121 | -0.798 | 0.531 | 3.673 | 0.953 | 38.2 |
| 1000S162-68 | 50 | 0.978 | 3.33 | 12.325 | 2.465 | 3.550 | 0.246 | 0.502 | 11.978 | 2.154 | 64.51 | 54.14 | 3345 | 3345 | 1.658 | 5.121 | -0.798 | 0.531 | 3.673 | 0.953 | 31.0 |
| 1000S162-97 | 33 | 1.372 | 4.67 | 16.967 | 3.393 | 3.516 | 0.320 | 0.483 | 16.967 | 3.393 | 67.06 | 66.16 | 8843 | 6434 | 4.731 | 6.827 | -0.768 | 0.514 | 3.631 | 0.955 | 37.5 |
| 1000S162-97 | 50 | 1.372 | 4.67 | 16.967 | 3.393 | 3.516 | 0.320 | 0.483 | 16.967 | 3.269 | 97.89 | 88.58 | 9864 | 7177 | 4.731 | 6.827 | -0.768 | 0.514 | 3.631 | 0.955 | 30.4 |
| 1000S162-118 | 33 | 1.655 | 5.63 | 20.169 | 4.034 | 3.491 | 0.363 | 0.468 | 20.169 | 4.034 | 79.71 | 79.57 | 13189 | 7747 | 8.511 | 7.924 | -0.746 | 0.502 | 3.600 | 0.957 | 37.0 |
| 1000S162-118 | 50 | 1.655 | 5.63 | 20.169 | 4.034 | 3.491 | 0.363 | 0.468 | 20.169 | 4.034 | 120.77 | 115.21 | 16235 | 9536 | 8.511 | 7.924 | -0.746 | 0.502 | 3.600 | 0.957 | 30.0 |
| 1000S200-43[1] | 33 | 0.672 | 2.29 | 9.085 | 1.817 | 3.676 | 0.309 | 0.677 | 8.602 | 1.470 | 29.05 | 25.49 | 836 | 836 | 0.456 | 6.236 | -1.147 | 0.743 | 3.910 | 0.914 | 49.3 |
| 1000S200-54 | 33 | 0.839 | 2.86 | 11.278 | 2.256 | 3.666 | 0.378 | 0.671 | 10.953 | 1.984 | 39.20 | 34.90 | 1661 | 1661 | 0.896 | 7.665 | -1.135 | 0.737 | 3.896 | 0.915 | 49.1 |
| 1000S200-54 | 50 | 0.839 | 2.86 | 11.278 | 2.256 | 3.666 | 0.378 | 0.671 | 10.769 | 1.705 | 51.05 | 45.25 | 1661 | 1661 | 0.896 | 7.665 | -1.135 | 0.737 | 3.896 | 0.915 | 39.8 |
| 1000S200-68 | 33 | 1.050 | 3.57 | 13.994 | 2.799 | 3.652 | 0.460 | 0.662 | 13.920 | 2.607 | 51.51 | 47.69 | 3345 | 3345 | 1.779 | 9.401 | -1.120 | 0.729 | 3.876 | 0.917 | 48.8 |
| 1000S200-68 | 50 | 1.050 | 3.57 | 13.994 | 2.799 | 3.652 | 0.460 | 0.662 | 13.665 | 2.420 | 72.46 | 62.46 | 3345 | 3345 | 1.779 | 9.401 | -1.120 | 0.729 | 3.876 | 0.917 | 39.6 |
| 1000S200-97 | 33 | 1.474 | 5.02 | 19.336 | 3.867 | 3.622 | 0.609 | 0.643 | 19.336 | 3.867 | 76.42 | 75.54 | 8843 | 6434 | 5.082 | 12.679 | -1.088 | 0.711 | 3.836 | 0.920 | 48.2 |
| 1000S200-97 | 50 | 1.474 | 5.02 | 19.336 | 3.867 | 3.622 | 0.609 | 0.643 | 19.336 | 3.741 | 112.00 | 101.18 | 9864 | 7177 | 5.082 | 12.679 | -1.088 | 0.711 | 3.836 | 0.920 | 39.0 |
| 1000S200-118 | 33 | 1.779 | 6.05 | 23.052 | 4.610 | 3.599 | 0.703 | 0.629 | 23.052 | 4.610 | 91.10 | 90.97 | 13189 | 7747 | 9.149 | 14.848 | -1.064 | 0.699 | 3.805 | 0.922 | 47.8 |
| 1000S200-118 | 50 | 1.779 | 6.05 | 23.052 | 4.610 | 3.599 | 0.703 | 0.629 | 23.052 | 4.610 | 138.04 | 131.18 | 16235 | 9536 | 9.149 | 14.848 | -1.064 | 0.699 | 3.805 | 0.922 | 38.7 |
| 1000S250-43[1] | 33 | 0.717 | 2.44 | 10.203 | 2.041 | 3.771 | 0.531 | 0.860 | 10.203 | 1.617 | 31.95 | 26.99 | 836 | 836 | 0.486 | 10.481 | -1.518 | 0.965 | 4.155 | 0.867 | 60.7 |
| 1000S250-54 | 33 | 0.896 | 3.05 | 12.677 | 2.535 | 3.762 | 0.653 | 0.854 | 12.677 | 2.277 | 44.99 | 37.02 | 1661 | 1661 | 0.957 | 12.922 | -1.505 | 0.958 | 4.140 | 0.868 | 60.5 |
| 1000S250-54 | 50 | 0.896 | 3.05 | 12.677 | 2.535 | 3.762 | 0.653 | 0.854 | 12.660 | 1.879 | 56.26 | 47.77 | 1661 | 1661 | 0.957 | 12.922 | -1.505 | 0.958 | 4.140 | 0.868 | 49.1 |
| 1000S250-68 | 33 | 1.121 | 3.81 | 15.751 | 3.150 | 3.749 | 0.799 | 0.844 | 15.751 | 3.054 | 60.34 | 50.74 | 3345 | 3345 | 1.899 | 15.909 | -1.488 | 0.950 | 4.121 | 0.870 | 60.2 |
| 1000S250-68 | 50 | 1.121 | 3.81 | 15.751 | 3.150 | 3.749 | 0.799 | 0.844 | 15.741 | 2.768 | 82.89 | 66.04 | 3345 | 3345 | 1.899 | 15.909 | -1.488 | 0.950 | 4.121 | 0.870 | 48.8 |
| 1000S250-97 | 33 | 1.576 | 5.36 | 21.827 | 4.365 | 3.722 | 1.072 | 0.825 | 21.827 | 4.365 | 86.26 | 81.09 | 8843 | 6434 | 5.433 | 21.632 | -1.454 | 0.932 | 4.080 | 0.873 | 59.7 |
| 1000S250-97 | 50 | 1.576 | 5.36 | 21.827 | 4.365 | 3.722 | 1.072 | 0.825 | 21.827 | 4.210 | 126.04 | 107.55 | 9864 | 7177 | 5.433 | 21.632 | -1.454 | 0.932 | 4.080 | 0.873 | 48.4 |
| 1000S250-118 | 33 | 1.904 | 6.48 | 26.080 | 5.216 | 3.701 | 1.249 | 0.810 | 26.080 | 5.216 | 103.07 | 102.93 | 13189 | 7747 | 9.788 | 25.490 | -1.428 | 0.918 | 4.049 | 0.876 | 59.4 |
| 1000S250-118 | 50 | 1.904 | 6.48 | 26.080 | 5.216 | 3.701 | 1.249 | 0.810 | 26.080 | 5.179 | 155.07 | 140.26 | 16235 | 9536 | 9.788 | 25.490 | -1.428 | 0.918 | 4.049 | 0.876 | 48.0 |
| 1000S300-54 | 33 | 0.967 | 3.29 | 14.339 | 2.868 | 3.851 | 1.093 | 1.064 | 14.339 | 2.519 | 49.77 | 41.40 | 1661 | 1661 | 1.032 | 21.714 | -1.973 | 1.233 | 4.456 | 0.804 | 73.6 |
| 1000S300-54 | 50 | 0.967 | 3.29 | 14.339 | 2.868 | 3.851 | 1.093 | 1.064 | 14.086 | 2.074 | 62.08 | 53.36 | 1661 | 1661 | 1.032 | 21.714 | -1.973 | 1.233 | 4.456 | 0.804 | 59.8 |
| 1000S300-68 | 33 | 1.210 | 4.12 | 17.840 | 3.568 | 3.840 | 1.345 | 1.054 | 17.840 | 3.313 | 65.48 | 56.61 | 3345 | 3345 | 2.050 | 26.816 | -1.955 | 1.224 | 4.436 | 0.806 | 73.4 |
| 1000S300-68 | 50 | 1.210 | 4.12 | 17.840 | 3.568 | 3.840 | 1.345 | 1.054 | 17.660 | 2.962 | 88.68 | 73.56 | 3345 | 3345 | 2.050 | 26.816 | -1.955 | 1.224 | 4.436 | 0.806 | 59.6 |
| 1000S300-97 | 33 | 1.703 | 5.79 | 24.791 | 4.958 | 3.816 | 1.825 | 1.035 | 24.791 | 4.894 | 96.71 | 90.26 | 8843 | 6434 | 5.871 | 36.699 | -1.919 | 1.206 | 4.395 | 0.809 | 73.0 |
| 1000S300-97 | 50 | 1.703 | 5.79 | 24.791 | 4.958 | 3.816 | 1.825 | 1.035 | 24.791 | 4.686 | 140.31 | 119.31 | 9864 | 7177 | 5.871 | 36.699 | -1.919 | 1.206 | 4.395 | 0.809 | 59.1 |
| 1000S300-118 | 33 | 2.059 | 7.01 | 29.686 | 5.937 | 3.797 | 2.146 | 1.021 | 29.686 | 5.937 | 117.32 | 116.01 | 13189 | 7747 | 10.586 | 43.456 | -1.893 | 1.192 | 4.364 | 0.812 | 72.7 |
| 1000S300-118 | 50 | 2.059 | 7.01 | 29.686 | 5.937 | 3.797 | 2.146 | 1.021 | 29.686 | 5.724 | 171.36 | 155.40 | 16235 | 9536 | 10.586 | 43.456 | -1.893 | 1.192 | 4.364 | 0.812 | 58.9 |
| 1000S350-54 | 33 | 1.052 | 3.58 | 16.220 | 3.244 | 3.927 | 1.768 | 1.297 | 15.942 | 2.772 | 54.77 | 47.86 | 1661 | 1661 | 1.123 | 36.575 | -2.546 | 1.566 | 4.857 | 0.725 | 88.9 |
| 1000S350-54 | 50 | 1.052 | 3.58 | 16.220 | 3.244 | 3.927 | 1.768 | 1.297 | 15.577 | 2.328 | 69.69 | 61.80 | 1661 | 1661 | 1.123 | 36.575 | -2.546 | 1.566 | 4.857 | 0.725 | 72.2 |
| 1000S350-68 | 33 | 1.317 | 4.48 | 20.204 | 4.041 | 3.917 | 2.185 | 1.288 | 20.204 | 3.824 | 75.57 | 65.20 | 3345 | 3345 | 2.232 | 45.277 | -2.529 | 1.557 | 4.837 | 0.727 | 88.7 |
| 1000S350-68 | 50 | 1.317 | 4.48 | 20.204 | 4.041 | 3.917 | 2.185 | 1.288 | 20.026 | 3.417 | 102.32 | 84.87 | 3345 | 3345 | 2.232 | 45.277 | -2.529 | 1.557 | 4.837 | 0.727 | 72.0 |
| 1000S350-97 | 33 | 1.855 | 6.31 | 28.148 | 5.630 | 3.895 | 2.992 | 1.270 | 28.148 | 5.614 | 110.93 | 103.29 | 8843 | 6434 | 6.397 | 62.280 | -2.492 | 1.538 | 4.795 | 0.730 | 88.4 |
| 1000S350-97 | 50 | 1.855 | 6.31 | 28.148 | 5.630 | 3.895 | 2.992 | 1.270 | 28.148 | 5.118 | 153.25 | 136.71 | 9864 | 7177 | 6.397 | 62.280 | -2.492 | 1.538 | 4.795 | 0.730 | 71.6 |
| 1000S350-118 | 33 | 2.245 | 7.64 | 33.772 | 6.754 | 3.878 | 3.543 | 1.256 | 33.772 | 6.754 | 133.47 | 132.31 | 13189 | 7747 | 11.544 | 74.030 | -2.465 | 1.524 | 4.764 | 0.732 | 88.3 |
| 1000S350-118 | 50 | 2.245 | 7.64 | 33.772 | 6.754 | 3.878 | 3.543 | 1.256 | 33.772 | 6.492 | 194.36 | 177.33 | 16235 | 9536 | 11.544 | 74.030 | -2.465 | 1.524 | 4.764 | 0.732 | 71.4 |
| 1150S137-43[1] | 33 | 0.661 | 2.25 | 10.325 | 1.796 | 3.952 | 0.100 | 0.388 | 9.301 | 1.334 | 26.36 | 20.36 | 725 | 725 | 0.448 | 2.764 | -0.556 | 0.379 | 4.010 | 0.981 | 30.5 |
| 1150S137-54 | 33 | 0.825 | 2.81 | 12.800 | 2.226 | 3.938 | 0.120 | 0.381 | 12.025 | 1.786 | 35.30 | 28.70 | 1439 | 1439 | 0.881 | 3.369 | -0.546 | 0.373 | 3.994 | 0.981 | 30.2 |
| 1150S137-54 | 50 | 0.825 | 2.81 | 12.800 | 2.226 | 3.938 | 0.120 | 0.381 | 11.627 | 1.617 | 48.43 | 36.73 | 1439 | 1439 | 0.881 | 3.369 | -0.546 | 0.373 | 3.994 | 0.981 | 24.5 |
| 1150S137-68 | 33 | 1.032 | 3.51 | 15.854 | 2.757 | 3.920 | 0.143 | 0.372 | 15.463 | 2.396 | 47.34 | 40.41 | 2895 | 2895 | 1.748 | 4.085 | -0.534 | 0.366 | 3.974 | 0.982 | 29.8 |
| 1150S137-68 | 50 | 1.032 | 3.51 | 15.854 | 2.757 | 3.920 | 0.143 | 0.372 | 14.977 | 2.238 | 67.01 | 52.15 | 2895 | 2895 | 1.748 | 4.085 | -0.534 | 0.366 | 3.974 | 0.982 | 24.2 |
| 1150S137-97 | 33 | 1.449 | 4.93 | 21.817 | 3.794 | 3.881 | 0.181 | 0.353 | 21.817 | 3.687 | 72.87 | 66.94 | 8518 | 7361 | 4.994 | 5.379 | -0.508 | 0.352 | 3.930 | 0.983 | 28.9 |
| 1150S137-97 | 50 | 1.449 | 4.93 | 21.817 | 3.794 | 3.881 | 0.181 | 0.353 | 21.738 | 3.478 | 104.13 | 88.07 | 8518 | 7361 | 4.994 | 5.379 | -0.508 | 0.352 | 3.930 | 0.983 | 23.5 |
| 1150S162-43[1] | 33 | 0.695 | 2.36 | 11.383 | 1.980 | 4.047 | 0.173 | 0.499 | 10.366 | 1.514 | 29.92 | 24.43 | 725 | 725 | 0.471 | 4.703 | -0.761 | 0.509 | 4.148 | 0.966 | 38.1 |
| 1150S162-54 | 33 | 0.868 | 2.95 | 14.126 | 2.457 | 4.035 | 0.210 | 0.492 | 13.350 | 2.012 | 39.76 | 34.02 | 1439 | 1439 | 0.927 | 5.759 | -0.750 | 0.503 | 4.134 | 0.967 | 37.8 |
| 1150S162-54 | 50 | 0.868 | 2.95 | 14.126 | 2.457 | 4.035 | 0.210 | 0.492 | 12.964 | 1.829 | 54.75 | 43.73 | 1439 | 1439 | 0.927 | 5.759 | -0.750 | 0.503 | 4.134 | 0.967 | 30.7 |
| 1150S162-68 | 33 | 1.085 | 3.69 | 17.521 | 3.047 | 4.018 | 0.253 | 0.483 | 17.124 | 2.681 | 52.99 | 47.35 | 2895 | 2895 | 1.839 | 7.028 | -0.737 | 0.496 | 4.114 | 0.968 | 37.4 |
| 1150S162-68 | 50 | 1.085 | 3.69 | 17.521 | 3.047 | 4.018 | 0.253 | 0.483 | 16.642 | 2.523 | 75.52 | 61.42 | 2895 | 2895 | 1.839 | 7.028 | -0.737 | 0.496 | 4.114 | 0.968 | 30.4 |

Table 3 continued on next page

**TABLE 3—C-SECTION (STUD) SECTION PROPERTIES[2,3,4,5] (Continued)**

| Section | Fy | Gross Properties | | | | | | | Effective Properties | | | | | | Torsional Properties | | | | | β | Lu |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Area | W | Ixx | Sxx | Rx | Iyy | Ry | Ixx | Sxx | Ma-L | Ma-D | Vag | VaNet | Jx1000 | Cw | Xo | m | Ro | | |
| | (ksi) | ($in^2$) | (lb/ft) | ($in^4$) | ($in^3$) | (in) | ($in^4$) | (in) | ($in^4$) | ($in^3$) | (in-k) | (in-k) | (lb) | (lb) | ($in^4$) | ($in^6$) | (in) | (in) | (in) | | (in) |
| 1150S162-97 | 33 | 1.525 | 5.19 | 24.186 | 4.206 | 3.983 | 0.329 | 0.464 | 24.186 | 4.098 | 80.97 | 77.22 | 8518 | 7361 | 5.257 | 9.379 | -0.709 | 0.480 | 4.072 | 0.970 | 36.7 |
| 1150S162-97 | 50 | 1.525 | 5.19 | 24.186 | 4.206 | 3.983 | 0.329 | 0.464 | 24.098 | 3.885 | 116.33 | 102.21 | 8518 | 7361 | 5.257 | 9.379 | -0.709 | 0.480 | 4.072 | 0.970 | 29.7 |
| 1150S162-118 | 33 | 1.841 | 6.27 | 28.813 | 5.011 | 3.956 | 0.373 | 0.450 | 28.813 | 5.011 | 99.02 | 98.90 | 13189 | 9222 | 9.469 | 10.894 | -0.688 | 0.469 | 4.040 | 0.971 | 36.1 |
| 1150S162-118 | 50 | 1.841 | 6.27 | 28.813 | 5.011 | 3.956 | 0.373 | 0.450 | 28.813 | 4.891 | 146.44 | 134.47 | 15674 | 10960 | 9.469 | 10.894 | -0.688 | 0.469 | 4.040 | 0.971 | 29.2 |
| 1150S200-43[1] | 33 | 0.740 | 2.52 | 12.796 | 2.225 | 4.158 | 0.319 | 0.656 | 11.815 | 1.708 | 33.75 | 28.89 | 725 | 725 | 0.502 | 8.534 | -1.067 | 0.700 | 4.343 | 0.940 | 48.6 |
| 1150S200-54 | 33 | 0.924 | 3.14 | 15.896 | 2.765 | 4.147 | 0.390 | 0.650 | 15.121 | 2.315 | 45.75 | 39.86 | 1439 | 1439 | 0.987 | 10.494 | -1.056 | 0.694 | 4.328 | 0.941 | 48.3 |
| 1150S200-54 | 50 | 0.924 | 3.14 | 15.896 | 2.765 | 4.147 | 0.390 | 0.650 | 14.823 | 1.981 | 59.31 | 51.37 | 1439 | 1439 | 0.987 | 10.494 | -1.056 | 0.694 | 4.328 | 0.941 | 39.2 |
| 1150S200-68 | 33 | 1.156 | 3.94 | 19.747 | 3.434 | 4.132 | 0.475 | 0.641 | 19.342 | 3.063 | 60.53 | 54.96 | 2895 | 2895 | 1.960 | 12.878 | -1.041 | 0.686 | 4.309 | 0.942 | 48.0 |
| 1150S200-68 | 50 | 1.156 | 3.94 | 19.747 | 3.434 | 4.132 | 0.475 | 0.641 | 18.904 | 2.827 | 84.65 | 71.48 | 2895 | 2895 | 1.960 | 12.878 | -1.041 | 0.686 | 4.309 | 0.942 | 38.9 |
| 1150S200-97 | 33 | 1.627 | 5.53 | 27.348 | 4.756 | 4.100 | 0.629 | 0.622 | 27.348 | 4.645 | 91.79 | 88.55 | 8518 | 7361 | 5.608 | 17.390 | -1.010 | 0.669 | 4.268 | 0.944 | 47.3 |
| 1150S200-97 | 50 | 1.627 | 5.53 | 27.348 | 4.756 | 4.100 | 0.629 | 0.622 | 27.250 | 4.430 | 132.63 | 117.49 | 8518 | 7361 | 5.608 | 17.390 | -1.010 | 0.669 | 4.268 | 0.944 | 38.3 |
| 1150S200-118 | 33 | 1.966 | 6.69 | 32.663 | 5.680 | 4.076 | 0.726 | 0.608 | 32.663 | 5.680 | 112.25 | 112.13 | 13189 | 9222 | 10.107 | 20.383 | -0.987 | 0.657 | 4.238 | 0.946 | 46.8 |
| 1150S200-118 | 50 | 1.966 | 6.69 | 32.663 | 5.680 | 4.076 | 0.726 | 0.608 | 32.663 | 5.558 | 166.40 | 153.83 | 15674 | 10960 | 10.107 | 20.383 | -0.987 | 0.657 | 4.238 | 0.946 | 37.9 |
| 1150S250-43[1] | 33 | 0.785 | 2.67 | 14.275 | 2.483 | 4.264 | 0.550 | 0.837 | 13.394 | 1.766 | 34.90 | 30.85 | 725 | 725 | 0.532 | 14.361 | -1.419 | 0.915 | 4.571 | 0.904 | 60.0 |
| 1150S250-54 | 33 | 0.981 | 3.34 | 17.749 | 3.087 | 4.254 | 0.676 | 0.830 | 17.089 | 2.371 | 46.85 | 42.56 | 1439 | 1439 | 1.047 | 17.713 | -1.407 | 0.908 | 4.557 | 0.905 | 59.8 |
| 1150S250-54 | 50 | 0.981 | 3.34 | 17.749 | 3.087 | 4.254 | 0.676 | 0.830 | 16.736 | 2.054 | 61.50 | 54.68 | 1439 | 1439 | 1.047 | 17.713 | -1.407 | 0.908 | 4.557 | 0.905 | 48.5 |
| 1150S250-68 | 33 | 1.228 | 4.18 | 22.075 | 3.839 | 4.240 | 0.827 | 0.821 | 21.712 | 3.334 | 65.87 | 58.74 | 2895 | 2895 | 2.081 | 21.822 | -1.391 | 0.900 | 4.537 | 0.906 | 59.5 |
| 1150S250-68 | 50 | 1.228 | 4.18 | 22.075 | 3.839 | 4.240 | 0.827 | 0.821 | 21.380 | 2.871 | 85.97 | 76.07 | 2895 | 2895 | 2.081 | 21.822 | -1.391 | 0.900 | 4.537 | 0.906 | 48.3 |
| 1150S250-97 | 33 | 1.728 | 5.88 | 30.651 | 5.331 | 4.211 | 1.110 | 0.801 | 30.651 | 5.217 | 103.10 | 95.10 | 8518 | 7361 | 5.959 | 29.711 | -1.358 | 0.882 | 4.497 | 0.909 | 58.9 |
| 1150S250-97 | 50 | 1.728 | 5.88 | 30.651 | 5.331 | 4.211 | 1.110 | 0.801 | 30.602 | 4.794 | 143.54 | 125.32 | 8518 | 7361 | 5.959 | 29.711 | -1.358 | 0.882 | 4.497 | 0.909 | 47.7 |
| 1150S250-118 | 33 | 2.090 | 7.11 | 36.681 | 6.379 | 4.189 | 1.294 | 0.787 | 36.681 | 6.379 | 126.06 | 123.25 | 13189 | 9222 | 10.746 | 35.043 | -1.333 | 0.869 | 4.466 | 0.911 | 58.5 |
| 1150S250-118 | 50 | 2.090 | 7.11 | 36.681 | 6.379 | 4.189 | 1.294 | 0.787 | 36.681 | 6.207 | 185.84 | 164.70 | 15674 | 10960 | 10.746 | 35.043 | -1.333 | 0.869 | 4.466 | 0.911 | 47.3 |
| 1150S300-54 | 33 | 1.052 | 3.58 | 19.965 | 3.472 | 4.357 | 1.136 | 1.039 | 19.965 | 2.864 | 56.59 | 47.82 | 1439 | 1439 | 1.123 | 29.655 | -1.855 | 1.175 | 4.848 | 0.854 | 73.0 |
| 1150S300-54 | 50 | 1.052 | 3.58 | 19.965 | 3.472 | 4.357 | 1.136 | 1.039 | 19.757 | 2.375 | 71.11 | 61.44 | 1439 | 1439 | 1.123 | 29.655 | -1.855 | 1.175 | 4.848 | 0.854 | 59.3 |
| 1150S300-68 | 33 | 1.317 | 4.48 | 24.860 | 4.323 | 4.345 | 1.398 | 1.030 | 24.860 | 4.029 | 79.62 | 65.74 | 2895 | 2895 | 2.232 | 36.647 | -1.838 | 1.166 | 4.829 | 0.855 | 72.7 |
| 1150S300-68 | 50 | 1.317 | 4.48 | 24.860 | 4.323 | 4.345 | 1.398 | 1.030 | 24.777 | 3.369 | 100.88 | 85.09 | 2895 | 2895 | 2.232 | 36.647 | -1.838 | 1.166 | 4.829 | 0.855 | 59.0 |
| 1150S300-97 | 33 | 1.855 | 6.31 | 34.606 | 6.018 | 4.319 | 1.897 | 1.011 | 34.606 | 5.943 | 117.44 | 105.88 | 8518 | 7361 | 6.397 | 50.223 | -1.803 | 1.148 | 4.788 | 0.858 | 72.2 |
| 1150S300-97 | 50 | 1.855 | 6.31 | 34.606 | 6.018 | 4.319 | 1.897 | 1.011 | 34.606 | 5.702 | 170.72 | 139.25 | 8518 | 7361 | 6.397 | 50.223 | -1.803 | 1.148 | 4.788 | 0.858 | 58.5 |
| 1150S300-118 | 33 | 2.245 | 7.64 | 41.495 | 7.216 | 4.299 | 2.230 | 0.997 | 41.495 | 7.216 | 142.60 | 137.03 | 13189 | 9222 | 11.544 | 59.530 | -1.777 | 1.135 | 4.757 | 0.860 | 71.9 |
| 1150S300-118 | 50 | 2.245 | 7.64 | 41.495 | 7.216 | 4.299 | 2.230 | 0.997 | 41.495 | 6.967 | 208.58 | 182.47 | 15674 | 10960 | 11.544 | 59.530 | -1.777 | 1.135 | 4.757 | 0.860 | 58.2 |
| 1150S350-54 | 33 | 1.136 | 3.87 | 22.491 | 3.911 | 4.449 | 1.844 | 1.274 | 22.229 | 3.164 | 62.53 | 55.49 | 1439 | 1439 | 1.214 | 49.461 | -2.406 | 1.499 | 5.215 | 0.787 | 88.2 |
| 1150S350-54 | 50 | 1.136 | 3.87 | 22.491 | 3.911 | 4.449 | 1.844 | 1.274 | 21.748 | 2.672 | 80.01 | 71.44 | 1439 | 1439 | 1.214 | 49.461 | -2.406 | 1.499 | 5.215 | 0.787 | 71.6 |
| 1150S350-68 | 33 | 1.424 | 4.85 | 28.036 | 4.876 | 4.437 | 2.278 | 1.265 | 28.036 | 4.628 | 91.45 | 75.90 | 2895 | 2895 | 2.413 | 61.271 | -2.389 | 1.490 | 5.196 | 0.789 | 88.0 |
| 1150S350-68 | 50 | 1.424 | 4.85 | 28.036 | 4.876 | 4.437 | 2.278 | 1.265 | 27.924 | 3.900 | 116.76 | 98.46 | 2895 | 2895 | 2.413 | 61.271 | -2.389 | 1.490 | 5.196 | 0.789 | 71.4 |
| 1150S350-97 | 33 | 2.008 | 6.83 | 39.118 | 6.803 | 4.414 | 3.120 | 1.247 | 39.118 | 6.784 | 134.06 | 121.21 | 8518 | 7361 | 6.923 | 84.399 | -2.353 | 1.471 | 5.155 | 0.792 | 87.6 |
| 1150S350-97 | 50 | 2.008 | 6.83 | 39.118 | 6.803 | 4.414 | 3.120 | 1.247 | 39.118 | 6.209 | 185.91 | 159.69 | 8518 | 7361 | 6.923 | 84.399 | -2.353 | 1.471 | 5.155 | 0.792 | 71.0 |
| 1150S350-118 | 33 | 2.431 | 8.27 | 46.989 | 8.172 | 4.396 | 3.695 | 1.233 | 46.989 | 8.172 | 161.48 | 156.13 | 13189 | 9222 | 12.502 | 100.426 | -2.326 | 1.457 | 5.124 | 0.794 | 87.3 |
| 1150S350-118 | 50 | 2.431 | 8.27 | 46.989 | 8.172 | 4.396 | 3.695 | 1.233 | 46.989 | 7.862 | 235.38 | 208.15 | 15674 | 10960 | 12.502 | 100.426 | -2.326 | 1.457 | 5.124 | 0.794 | 70.7 |
| 1200S137-54[1] | 33 | 0.853 | 2.90 | 14.283 | 2.380 | 4.091 | 0.121 | 0.376 | 13.296 | 1.873 | 37.01 | 29.66 | 1377 | 1377 | 0.911 | 3.709 | -0.532 | 0.365 | 4.142 | 0.984 | 30.0 |
| 1200S137-54[1] | 50 | 0.853 | 2.90 | 14.283 | 2.380 | 4.091 | 0.121 | 0.376 | 12.836 | 1.694 | 50.71 | 37.88 | 1377 | 1377 | 0.911 | 3.709 | -0.532 | 0.365 | 4.142 | 0.984 | 24.3 |
| 1200S137-68 | 33 | 1.067 | 3.63 | 17.698 | 2.950 | 4.072 | 0.144 | 0.367 | 17.142 | 2.518 | 49.76 | 41.89 | 2771 | 2771 | 1.809 | 4.499 | -0.520 | 0.358 | 4.121 | 0.984 | 29.5 |
| 1200S137-68 | 50 | 1.067 | 3.63 | 17.698 | 2.950 | 4.072 | 0.144 | 0.367 | 16.572 | 2.348 | 70.30 | 53.93 | 2771 | 2771 | 1.809 | 4.499 | -0.520 | 0.358 | 4.121 | 0.984 | 24.0 |
| 1200S137-97 | 33 | 1.499 | 5.10 | 24.379 | 4.063 | 4.032 | 0.182 | 0.348 | 24.379 | 3.899 | 77.04 | 69.85 | 8147 | 7411 | 5.170 | 5.925 | -0.494 | 0.343 | 4.077 | 0.985 | 28.7 |
| 1200S137-97 | 50 | 1.499 | 5.10 | 24.379 | 4.063 | 4.032 | 0.182 | 0.348 | 24.161 | 3.666 | 109.75 | 91.58 | 8147 | 7411 | 5.170 | 5.925 | -0.494 | 0.343 | 4.077 | 0.985 | 23.2 |
| 1200S162-54[1] | 33 | 0.896 | 3.05 | 15.730 | 2.622 | 4.190 | 0.212 | 0.486 | 14.743 | 2.109 | 41.68 | 35.23 | 1377 | 1377 | 0.957 | 6.340 | -0.732 | 0.493 | 4.281 | 0.971 | 37.5 |
| 1200S162-54[1] | 50 | 0.896 | 3.05 | 15.730 | 2.622 | 4.190 | 0.212 | 0.486 | 14.298 | 1.914 | 57.31 | 45.19 | 1377 | 1377 | 0.957 | 6.340 | -0.732 | 0.493 | 4.281 | 0.971 | 30.5 |
| 1200S162-68 | 33 | 1.121 | 3.81 | 19.518 | 3.253 | 4.173 | 0.255 | 0.477 | 18.955 | 2.817 | 55.66 | 49.20 | 2771 | 2771 | 1.899 | 7.739 | -0.719 | 0.485 | 4.261 | 0.972 | 37.2 |
| 1200S162-68 | 50 | 1.121 | 3.81 | 19.518 | 3.253 | 4.173 | 0.255 | 0.477 | 18.390 | 2.645 | 79.19 | 63.67 | 2771 | 2771 | 1.899 | 7.739 | -0.719 | 0.485 | 4.261 | 0.972 | 30.2 |
| 1200S162-97 | 33 | 1.576 | 5.36 | 26.966 | 4.494 | 4.137 | 0.331 | 0.459 | 26.966 | 4.327 | 85.51 | 80.73 | 8147 | 7411 | 5.433 | 10.331 | -0.691 | 0.470 | 4.219 | 0.973 | 36.4 |
| 1200S162-97 | 50 | 1.576 | 5.36 | 26.966 | 4.494 | 4.137 | 0.331 | 0.459 | 26.735 | 4.091 | 122.49 | 106.50 | 8147 | 7411 | 5.433 | 10.331 | -0.691 | 0.470 | 4.219 | 0.973 | 29.5 |
| 1200S162-118 | 33 | 1.904 | 6.48 | 32.145 | 5.357 | 4.109 | 0.376 | 0.444 | 32.145 | 5.357 | 105.87 | 104.91 | 13189 | 9714 | 9.788 | 12.002 | -0.670 | 0.459 | 4.187 | 0.974 | 35.8 |
| 1200S162-118 | 50 | 1.904 | 6.48 | 32.145 | 5.357 | 4.109 | 0.376 | 0.444 | 32.145 | 5.168 | 154.74 | 140.59 | 14986 | 11037 | 9.788 | 12.002 | -0.670 | 0.459 | 4.187 | 0.974 | 29.0 |
| 1200S200-54[1] | 33 | 0.953 | 3.24 | 17.662 | 2.944 | 4.306 | 0.393 | 0.643 | 16.678 | 2.425 | 47.93 | 41.40 | 1377 | 1377 | 1.017 | 11.550 | -1.032 | 0.681 | 4.474 | 0.947 | 48.0 |
| 1200S200-54[1] | 50 | 0.953 | 3.24 | 17.662 | 2.944 | 4.306 | 0.393 | 0.643 | 16.334 | 2.073 | 62.07 | 53.27 | 1377 | 1377 | 1.017 | 11.550 | -1.032 | 0.681 | 4.474 | 0.947 | 39.0 |
| 1200S200-68 | 33 | 1.192 | 4.06 | 21.947 | 3.658 | 4.291 | 0.479 | 0.634 | 21.376 | 3.215 | 63.54 | 57.25 | 2771 | 2771 | 2.020 | 14.176 | -1.017 | 0.673 | 4.455 | 0.948 | 47.7 |
| 1200S200-68 | 50 | 1.192 | 4.06 | 21.947 | 3.658 | 4.291 | 0.479 | 0.634 | 20.864 | 2.963 | 88.71 | 74.31 | 2771 | 2771 | 2.020 | 14.176 | -1.017 | 0.673 | 4.455 | 0.948 | 38.7 |
| 1200S200-97 | 33 | 1.677 | 5.71 | 30.417 | 5.069 | 4.258 | 0.635 | 0.615 | 30.417 | 4.899 | 96.81 | 92.75 | 8147 | 7411 | 5.783 | 19.150 | -0.987 | 0.656 | 4.414 | 0.950 | 47.0 |
| 1200S200-97 | 50 | 1.677 | 5.71 | 30.417 | 5.069 | 4.258 | 0.635 | 0.615 | 30.175 | 4.660 | 139.51 | 122.70 | 8147 | 7411 | 5.783 | 19.150 | -0.987 | 0.656 | 4.414 | 0.950 | 38.1 |
| 1200S200-118 | 33 | 2.028 | 6.90 | 36.347 | 6.058 | 4.234 | 0.732 | 0.601 | 36.347 | 6.058 | 119.71 | 119.59 | 13189 | 9714 | 10.427 | 22.451 | -0.964 | 0.644 | 4.384 | 0.952 | 46.5 |

Table 3 continued on next page

**TABLE 3—C-SECTION (STUD) SECTION PROPERTIES[2,3,4,5] (Continued)**

| Section | Fy | Gross Properties | | | | | | | Effective Properties | | | | | | Torsional Properties | | | | | β | Lu |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Area | W | Ixx | Sxx | Rx | Iyy | Ry | Ixx | Sxx | Ma-L | Ma-D | Vag | VaNet | Jx1000 | Cw | Xo | m | Ro | | |
| | (ksi) | ($in^2$) | (lb/ft) | ($in^4$) | ($in^3$) | (in) | ($in^4$) | (in) | ($in^4$) | ($in^3$) | (in-k) | (in-k) | (lb) | (lb) | ($in^4$) | ($in^6$) | (in) | (in) | (in) | | (in) |
| 1200S200-118 | 50 | 2.028 | 6.90 | 36.347 | 6.058 | 4.234 | 0.732 | 0.601 | 36.347 | 5.865 | 175.59 | 161.15 | 14986 | 11037 | 10.427 | 22.451 | -0.964 | 0.644 | 4.384 | 0.952 | 37.7 |
| 1200S250-54[1] | 33 | 1.009 | 3.43 | 19.681 | 3.280 | 4.416 | 0.683 | 0.823 | 18.832 | 2.482 | 49.05 | 44.32 | 1377 | 1377 | 1.078 | 19.505 | -1.378 | 0.892 | 4.699 | 0.914 | 59.6 |
| 1200S250-54[1] | 50 | 1.009 | 3.43 | 19.681 | 3.280 | 4.416 | 0.683 | 0.823 | 18.433 | 2.149 | 64.34 | 56.87 | 1377 | 1377 | 1.078 | 19.505 | -1.378 | 0.892 | 4.699 | 0.914 | 48.3 |
| 1200S250-68 | 33 | 1.263 | 4.30 | 24.484 | 4.081 | 4.402 | 0.836 | 0.813 | 23.963 | 3.496 | 69.08 | 61.31 | 2771 | 2771 | 2.141 | 24.034 | -1.362 | 0.884 | 4.679 | 0.915 | 59.2 |
| 1200S250-68 | 50 | 1.263 | 4.30 | 24.484 | 4.081 | 4.402 | 0.836 | 0.813 | 23.575 | 3.007 | 90.04 | 79.28 | 2771 | 2771 | 2.141 | 24.034 | -1.362 | 0.884 | 4.679 | 0.915 | 48.1 |
| 1200S250-97 | 33 | 1.779 | 6.05 | 34.016 | 5.669 | 4.373 | 1.121 | 0.794 | 34.016 | 5.496 | 108.60 | 99.68 | 8147 | 7411 | 6.134 | 32.734 | -1.329 | 0.867 | 4.639 | 0.918 | 58.6 |
| 1200S250-97 | 50 | 1.779 | 6.05 | 34.016 | 5.669 | 4.373 | 1.121 | 0.794 | 33.835 | 5.037 | 150.82 | 131.09 | 8147 | 7411 | 6.134 | 32.734 | -1.329 | 0.867 | 4.639 | 0.918 | 47.5 |
| 1200S250-118 | 33 | 2.152 | 7.32 | 40.726 | 6.788 | 4.350 | 1.307 | 0.779 | 40.726 | 6.788 | 134.13 | 129.57 | 13189 | 9714 | 11.065 | 38.619 | -1.305 | 0.854 | 4.608 | 0.920 | 58.2 |
| 1200S250-118 | 50 | 2.152 | 7.32 | 40.726 | 6.788 | 4.350 | 1.307 | 0.779 | 40.726 | 6.541 | 195.84 | 172.71 | 14986 | 11037 | 11.065 | 38.619 | -1.305 | 0.854 | 4.608 | 0.920 | 47.1 |
| 1200S300-54[1] | 33 | 1.080 | 3.67 | 22.098 | 3.683 | 4.524 | 1.149 | 1.031 | 22.098 | 2.979 | 58.87 | 49.90 | 1377 | 1377 | 1.153 | 32.627 | -1.819 | 1.157 | 4.983 | 0.867 | 72.8 |
| 1200S300-54[1] | 50 | 1.080 | 3.67 | 22.098 | 3.683 | 4.524 | 1.149 | 1.031 | 21.982 | 2.476 | 74.13 | 64.04 | 1377 | 1377 | 1.153 | 32.627 | -1.819 | 1.157 | 4.983 | 0.867 | 59.1 |
| 1200S300-68 | 33 | 1.353 | 4.60 | 27.523 | 4.587 | 4.511 | 1.413 | 1.022 | 27.523 | 4.280 | 84.58 | 68.72 | 2771 | 2771 | 2.292 | 40.327 | -1.802 | 1.148 | 4.964 | 0.868 | 72.5 |
| 1200S300-68 | 50 | 1.353 | 4.60 | 27.523 | 4.587 | 4.511 | 1.413 | 1.022 | 27.495 | 3.506 | 104.97 | 88.84 | 2771 | 2771 | 2.292 | 40.327 | -1.802 | 1.148 | 4.964 | 0.868 | 58.8 |
| 1200S300-97 | 33 | 1.906 | 6.49 | 38.333 | 6.389 | 4.484 | 1.918 | 1.003 | 38.333 | 6.310 | 124.69 | 111.04 | 8147 | 7411 | 6.572 | 55.286 | -1.767 | 1.130 | 4.923 | 0.871 | 72.0 |
| 1200S300-97 | 50 | 1.906 | 6.49 | 38.333 | 6.389 | 4.484 | 1.918 | 1.003 | 38.333 | 6.058 | 181.38 | 145.80 | 8147 | 7411 | 6.572 | 55.286 | -1.767 | 1.130 | 4.923 | 0.871 | 58.3 |
| 1200S300-118 | 33 | 2.307 | 7.85 | 45.982 | 7.664 | 4.464 | 2.255 | 0.989 | 45.982 | 7.664 | 151.44 | 144.04 | 13189 | 9714 | 11.864 | 65.549 | -1.742 | 1.117 | 4.893 | 0.873 | 71.6 |
| 1200S300-118 | 50 | 2.307 | 7.85 | 45.982 | 7.664 | 4.464 | 2.255 | 0.989 | 45.982 | 7.402 | 221.61 | 191.43 | 14986 | 11037 | 11.864 | 65.549 | -1.742 | 1.117 | 4.893 | 0.873 | 58.0 |
| 1200S350-54[1] | 33 | 1.165 | 3.96 | 24.860 | 4.143 | 4.620 | 1.866 | 1.266 | 24.610 | 3.295 | 65.12 | 58.00 | 1377 | 1377 | 1.244 | 54.279 | -2.363 | 1.478 | 5.341 | 0.804 | 88.0 |
| 1200S350-54[1] | 50 | 1.165 | 3.96 | 24.860 | 4.143 | 4.620 | 1.866 | 1.266 | 24.087 | 2.787 | 83.46 | 74.60 | 1377 | 1377 | 1.244 | 54.279 | -2.363 | 1.478 | 5.341 | 0.804 | 71.4 |
| 1200S350-68 | 33 | 1.460 | 4.97 | 30.996 | 5.166 | 4.608 | 2.306 | 1.257 | 30.996 | 4.908 | 96.98 | 79.43 | 2771 | 2771 | 2.473 | 67.251 | -2.346 | 1.469 | 5.322 | 0.806 | 87.7 |
| 1200S350-68 | 50 | 1.460 | 4.97 | 30.996 | 5.166 | 4.608 | 2.306 | 1.257 | 30.916 | 4.061 | 121.59 | 102.93 | 2771 | 2771 | 2.473 | 67.251 | -2.346 | 1.469 | 5.322 | 0.806 | 71.2 |
| 1200S350-97 | 33 | 2.059 | 7.01 | 43.269 | 7.211 | 4.584 | 3.159 | 1.239 | 43.269 | 7.191 | 142.10 | 127.18 | 8147 | 7411 | 7.098 | 92.672 | -2.310 | 1.450 | 5.281 | 0.809 | 87.3 |
| 1200S350-97 | 50 | 2.059 | 7.01 | 43.269 | 7.211 | 4.584 | 3.159 | 1.239 | 43.269 | 6.590 | 197.31 | 167.31 | 8147 | 7411 | 7.098 | 92.672 | -2.310 | 1.450 | 5.281 | 0.809 | 70.8 |
| 1200S350-118 | 33 | 2.494 | 8.48 | 51.992 | 8.665 | 4.566 | 3.741 | 1.225 | 51.992 | 8.665 | 171.23 | 164.11 | 13189 | 9714 | 12.821 | 110.302 | -2.284 | 1.436 | 5.250 | 0.811 | 87.0 |
| 1200S350-118 | 50 | 2.494 | 8.48 | 51.992 | 8.665 | 4.566 | 3.741 | 1.225 | 51.992 | 8.339 | 249.68 | 218.42 | 14986 | 11037 | 12.821 | 110.302 | -2.284 | 1.436 | 5.250 | 0.811 | 70.5 |
| 1350S137-54[1] | 33 | 0.938 | 3.19 | 19.386 | 2.872 | 4.545 | 0.123 | 0.362 | 17.546 | 2.133 | 42.14 | 32.30 | 1221 | 1221 | 1.002 | 4.839 | -0.493 | 0.341 | 4.586 | 0.988 | 29.3 |
| 1350S137-54[1] | 50 | 0.938 | 3.19 | 19.386 | 2.872 | 4.545 | 0.123 | 0.362 | 16.866 | 1.922 | 57.54 | 41.04 | 1221 | 1221 | 1.002 | 4.839 | -0.493 | 0.341 | 4.586 | 0.988 | 23.8 |
| 1350S137-68 | 33 | 1.174 | 4.00 | 24.050 | 3.563 | 4.526 | 0.147 | 0.353 | 22.783 | 2.885 | 57.02 | 46.03 | 2455 | 2455 | 1.990 | 5.870 | -0.482 | 0.334 | 4.565 | 0.989 | 28.8 |
| 1350S137-68 | 50 | 1.174 | 4.00 | 24.050 | 3.563 | 4.526 | 0.147 | 0.353 | 21.907 | 2.677 | 80.15 | 58.90 | 2455 | 2455 | 1.990 | 5.870 | -0.482 | 0.334 | 4.565 | 0.989 | 23.4 |
| 1350S137-97 | 33 | 1.652 | 5.62 | 33.215 | 4.921 | 4.484 | 0.185 | 0.335 | 33.215 | 4.535 | 89.62 | 78.13 | 7206 | 7206 | 5.696 | 7.735 | -0.458 | 0.321 | 4.520 | 0.990 | 27.9 |
| 1350S137-97 | 50 | 1.652 | 5.62 | 33.215 | 4.921 | 4.484 | 0.185 | 0.335 | 32.333 | 4.229 | 126.61 | 101.54 | 7206 | 7206 | 5.696 | 7.735 | -0.458 | 0.321 | 4.520 | 0.990 | 22.7 |
| 1350S162-54[1] | 33 | 0.981 | 3.34 | 21.228 | 3.145 | 4.652 | 0.216 | 0.469 | 19.394 | 2.399 | 47.41 | 38.58 | 1221 | 1221 | 1.047 | 8.273 | -0.682 | 0.463 | 4.725 | 0.979 | 36.8 |
| 1350S162-54[1] | 50 | 0.981 | 3.34 | 21.228 | 3.145 | 4.652 | 0.216 | 0.469 | 18.737 | 2.170 | 64.98 | 49.23 | 1221 | 1221 | 1.047 | 8.273 | -0.682 | 0.463 | 4.725 | 0.979 | 29.9 |
| 1350S162-68 | 33 | 1.228 | 4.18 | 26.368 | 3.906 | 4.634 | 0.261 | 0.461 | 25.092 | 3.222 | 63.66 | 54.37 | 2455 | 2455 | 2.081 | 10.101 | -0.669 | 0.456 | 4.705 | 0.980 | 36.4 |
| 1350S162-68 | 50 | 1.228 | 4.18 | 26.368 | 3.906 | 4.634 | 0.261 | 0.461 | 24.228 | 3.012 | 90.19 | 69.90 | 2455 | 2455 | 2.081 | 10.101 | -0.669 | 0.456 | 4.705 | 0.980 | 29.6 |
| 1350S162-97 | 33 | 1.728 | 5.88 | 36.510 | 5.409 | 4.596 | 0.338 | 0.442 | 36.510 | 5.018 | 99.15 | 90.70 | 7206 | 7206 | 5.959 | 13.494 | -0.643 | 0.441 | 4.662 | 0.981 | 35.6 |
| 1350S162-97 | 50 | 1.728 | 5.88 | 36.510 | 5.409 | 4.596 | 0.338 | 0.442 | 35.611 | 4.709 | 140.98 | 118.57 | 7206 | 7206 | 5.959 | 13.494 | -0.643 | 0.441 | 4.662 | 0.981 | 28.9 |
| 1350S162-118 | 33 | 2.090 | 7.11 | 43.598 | 6.459 | 4.567 | 0.383 | 0.428 | 43.598 | 6.346 | 125.39 | 119.26 | 13189 | 11189 | 10.746 | 15.684 | -0.624 | 0.431 | 4.630 | 0.982 | 35.0 |
| 1350S162-118 | 50 | 2.090 | 7.11 | 43.598 | 6.459 | 4.567 | 0.383 | 0.428 | 43.598 | 6.003 | 179.72 | 158.01 | 13240 | 11232 | 10.746 | 15.684 | -0.624 | 0.431 | 4.630 | 0.982 | 28.4 |
| 1350S200-54[1] | 33 | 1.037 | 3.53 | 23.688 | 3.509 | 4.778 | 0.403 | 0.623 | 21.864 | 2.756 | 54.46 | 45.72 | 1221 | 1221 | 1.108 | 15.066 | -0.966 | 0.644 | 4.915 | 0.961 | 47.3 |
| 1350S200-54[1] | 50 | 1.037 | 3.53 | 23.688 | 3.509 | 4.778 | 0.403 | 0.623 | 21.358 | 2.348 | 70.31 | 58.53 | 1221 | 1221 | 1.108 | 15.066 | -0.966 | 0.644 | 4.915 | 0.961 | 38.4 |
| 1350S200-68 | 33 | 1.299 | 4.42 | 29.461 | 4.365 | 4.762 | 0.491 | 0.615 | 28.180 | 3.672 | 72.55 | 63.74 | 2455 | 2455 | 2.201 | 18.498 | -0.952 | 0.636 | 4.895 | 0.962 | 46.9 |
| 1350S200-68 | 50 | 1.299 | 4.42 | 29.461 | 4.365 | 4.762 | 0.491 | 0.615 | 27.397 | 3.369 | 100.88 | 82.24 | 2455 | 2455 | 2.201 | 18.498 | -0.952 | 0.636 | 4.895 | 0.962 | 38.1 |
| 1350S200-97 | 33 | 1.830 | 6.23 | 40.907 | 6.060 | 4.728 | 0.650 | 0.596 | 40.905 | 5.662 | 111.89 | 104.84 | 7206 | 7206 | 6.309 | 25.008 | -0.923 | 0.620 | 4.854 | 0.964 | 46.2 |
| 1350S200-97 | 50 | 1.830 | 6.23 | 40.907 | 6.060 | 4.728 | 0.650 | 0.596 | 39.991 | 5.350 | 160.18 | 137.58 | 7206 | 7206 | 6.309 | 25.008 | -0.923 | 0.620 | 4.854 | 0.964 | 37.5 |
| 1350S200-118 | 33 | 2.214 | 7.53 | 48.953 | 7.252 | 4.702 | 0.750 | 0.582 | 48.953 | 7.137 | 141.02 | 137.00 | 13189 | 11189 | 11.385 | 29.336 | -0.902 | 0.609 | 4.823 | 0.965 | 45.7 |
| 1350S200-118 | 50 | 2.214 | 7.53 | 48.953 | 7.252 | 4.702 | 0.750 | 0.582 | 48.953 | 6.788 | 203.24 | 182.25 | 13240 | 11232 | 11.385 | 29.336 | -0.902 | 0.609 | 4.823 | 0.965 | 37.0 |
| 1350S250-54[1] | 33 | 1.094 | 3.72 | 26.245 | 3.888 | 4.898 | 0.701 | 0.801 | 24.632 | 2.816 | 55.64 | 49.34 | 1221 | 1221 | 1.168 | 25.480 | -1.296 | 0.849 | 5.129 | 0.936 | 58.8 |
| 1350S250-54[1] | 50 | 1.094 | 3.72 | 26.245 | 3.888 | 4.898 | 0.701 | 0.801 | 24.075 | 2.432 | 72.82 | 63.07 | 1221 | 1221 | 1.168 | 25.480 | -1.296 | 0.849 | 5.129 | 0.936 | 47.8 |
| 1350S250-68 | 33 | 1.370 | 4.66 | 32.675 | 4.841 | 4.883 | 0.858 | 0.791 | 31.477 | 3.983 | 78.70 | 68.69 | 2455 | 2455 | 2.322 | 31.409 | -1.281 | 0.841 | 5.110 | 0.937 | 58.5 |
| 1350S250-68 | 50 | 1.370 | 4.66 | 32.675 | 4.841 | 4.883 | 0.858 | 0.791 | 30.883 | 3.415 | 102.23 | 88.44 | 2455 | 2455 | 2.322 | 31.409 | -1.281 | 0.841 | 5.110 | 0.937 | 47.5 |
| 1350S250-97 | 33 | 1.932 | 6.57 | 45.471 | 6.736 | 4.852 | 1.151 | 0.772 | 45.457 | 6.332 | 125.12 | 113.07 | 7206 | 7206 | 6.660 | 42.816 | -1.250 | 0.824 | 5.069 | 0.939 | 57.8 |
| 1350S250-97 | 50 | 1.932 | 6.57 | 45.471 | 6.736 | 4.852 | 1.151 | 0.772 | 44.659 | 5.767 | 172.67 | 147.82 | 7206 | 7206 | 6.660 | 42.816 | -1.250 | 0.824 | 5.069 | 0.939 | 46.9 |
| 1350S250-118 | 33 | 2.338 | 7.96 | 54.508 | 8.075 | 4.828 | 1.341 | 0.757 | 54.508 | 7.957 | 157.24 | 148.19 | 13189 | 11189 | 12.023 | 50.545 | -1.226 | 0.811 | 5.039 | 0.941 | 57.3 |
| 1350S250-118 | 50 | 2.338 | 7.96 | 54.508 | 8.075 | 4.828 | 1.341 | 0.757 | 54.508 | 7.545 | 225.91 | 196.14 | 13240 | 11232 | 12.023 | 50.545 | -1.226 | 0.811 | 5.039 | 0.941 | 46.5 |
| 1350S300-54[1] | 33 | 1.165 | 3.96 | 29.323 | 4.344 | 5.017 | 1.183 | 1.008 | 27.753 | 3.157 | 62.39 | 55.92 | 1221 | 1221 | 1.244 | 42.542 | -1.719 | 1.106 | 5.399 | 0.899 | 72.1 |
| 1350S300-54[1] | 50 | 1.165 | 3.96 | 29.323 | 4.344 | 5.017 | 1.183 | 1.008 | 26.577 | 2.702 | 80.91 | 71.54 | 1221 | 1221 | 1.244 | 42.542 | -1.719 | 1.106 | 5.399 | 0.899 | 58.6 |
| 1350S300-68 | 33 | 1.460 | 4.97 | 36.545 | 5.414 | 5.004 | 1.456 | 0.999 | 35.452 | 4.303 | 85.02 | 77.40 | 2455 | 2455 | 2.473 | 52.605 | -1.703 | 1.097 | 5.379 | 0.900 | 71.8 |

Table 3 continued on next page

**TABLE 3—C-SECTION (STUD) SECTION PROPERTIES[2,3,4,5]**

| Section | Fy (ksi) | Gross Properties | | | | | | | Effective Properties | | | | | | Torsional Properties | | | | | | Lu (in) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Area | W | Ixx | Sxx | Rx | Iyy | Ry | Ixx | Sxx | Ma-L | Ma-D | Vag | VaNet | Jx1000 | Cw | Xo | m | Ro | β | |
| | | ($in^2$) | (lb/ft) | ($in^4$) | ($in^3$) | (in) | ($in^4$) | (in) | ($in^4$) | ($in^3$) | (in-k) | (in-k) | (lb) | (lb) | ($in^4$) | ($in^6$) | (in) | (in) | (in) | | |
| 1350S300-68 | 50 | 1.460 | 4.97 | 36.545 | 5.414 | 5.004 | 1.456 | 0.999 | 34.870 | 3.714 | 111.19 | 99.70 | 2455 | 2455 | 2.473 | 52.605 | -1.703 | 1.097 | 5.379 | 0.900 | 58.3 |
| 1350S300-97 | 33 | 2.059 | 7.01 | 50.970 | 7.551 | 4.976 | 1.975 | 0.979 | 50.970 | 7.039 | 139.10 | 126.28 | 7206 | 7206 | 7.098 | 72.186 | -1.670 | 1.080 | 5.339 | 0.902 | 71.2 |
| 1350S300-97 | 50 | 2.059 | 7.01 | 50.970 | 7.551 | 4.976 | 1.975 | 0.979 | 50.206 | 6.391 | 191.33 | 165.03 | 7206 | 7206 | 7.098 | 72.186 | -1.670 | 1.080 | 5.339 | 0.902 | 57.8 |
| 1350S300-118 | 33 | 2.494 | 8.48 | 61.205 | 9.067 | 4.954 | 2.322 | 0.965 | 61.205 | 8.947 | 176.80 | 164.90 | 13189 | 11189 | 12.821 | 85.646 | -1.645 | 1.067 | 5.309 | 0.904 | 70.8 |
| 1350S300-118 | 50 | 2.494 | 8.48 | 61.205 | 9.067 | 4.954 | 2.322 | 0.965 | 61.205 | 8.254 | 247.12 | 217.94 | 13240 | 11232 | 12.821 | 85.646 | -1.645 | 1.067 | 5.309 | 0.904 | 57.4 |
| 1350S350-54[1] | 33 | 1.250 | 4.25 | 32.857 | 4.868 | 5.128 | 1.928 | 1.242 | 32.660 | 3.69 | 72.93 | 65.36 | 1221 | 1221 | 1.334 | 70.347 | -2.243 | 1.418 | 5.733 | 0.847 | 87.3 |
| 1350S350-54[1] | 50 | 1.250 | 4.25 | 32.857 | 4.868 | 5.128 | 1.928 | 1.242 | 30.857 | 3.133 | 93.81 | 83.83 | 1221 | 1221 | 1.334 | 70.347 | -2.243 | 1.418 | 5.733 | 0.847 | 70.9 |
| 1350S350-68 | 33 | 1.566 | 5.33 | 40.990 | 6.073 | 5.115 | 2.383 | 1.233 | 40.990 | 5.515 | 108.97 | 89.86 | 2455 | 2455 | 2.654 | 87.201 | -2.227 | 1.410 | 5.714 | 0.848 | 87.0 |
| 1350S350-68 | 50 | 1.566 | 5.33 | 40.990 | 6.073 | 5.115 | 2.383 | 1.233 | 40.990 | 4.547 | 136.13 | 116.06 | 2455 | 2455 | 2.654 | 87.201 | -2.227 | 1.410 | 5.714 | 0.848 | 70.6 |
| 1350S350-97 | 33 | 2.211 | 7.52 | 57.289 | 8.487 | 5.090 | 3.264 | 1.215 | 57.289 | 8.464 | 167.26 | 144.95 | 7206 | 7206 | 7.624 | 120.281 | -2.192 | 1.391 | 5.673 | 0.851 | 86.5 |
| 1350S350-97 | 50 | 2.211 | 7.52 | 57.289 | 8.487 | 5.090 | 3.264 | 1.215 | 57.289 | 7.784 | 233.07 | 189.90 | 7206 | 7206 | 7.624 | 120.281 | -2.192 | 1.391 | 5.673 | 0.851 | 70.2 |
| 1350S350-118 | 33 | 2.680 | 9.12 | 68.904 | 10.208 | 5.071 | 3.865 | 1.201 | 68.904 | 10.208 | 201.71 | 188.04 | 13189 | 11189 | 13.779 | 143.266 | -2.166 | 1.378 | 5.643 | 0.853 | 86.1 |
| 1350S350-118 | 50 | 2.680 | 9.12 | 68.904 | 10.208 | 5.071 | 3.865 | 1.201 | 68.904 | 9.835 | 294.45 | 249.03 | 13240 | 11232 | 13.779 | 143.266 | -2.166 | 1.378 | 5.643 | 0.853 | 69.8 |
| 1400S137-54[1] | 33 | 0.967 | 3.29 | 21.317 | 3.045 | 4.696 | 0.124 | 0.358 | 19.109 | 2.219 | 43.85 | 33.12 | 1177 | 1177 | 1.032 | 5.251 | -0.482 | 0.334 | 4.734 | 0.990 | 29.0 |
| 1400S137-54[1] | 50 | 0.967 | 3.29 | 21.317 | 3.045 | 4.696 | 0.124 | 0.358 | 18.345 | 1.998 | 59.82 | 42.02 | 1177 | 1177 | 1.032 | 5.251 | -0.482 | 0.334 | 4.734 | 0.990 | 23.6 |
| 1400S137-68 | 33 | 1.210 | 4.12 | 26.455 | 3.779 | 4.676 | 0.147 | 0.349 | 24.868 | 3.008 | 59.43 | 47.32 | 2365 | 2365 | 2.050 | 6.372 | -0.470 | 0.327 | 4.712 | 0.990 | 28.6 |
| 1400S137-68 | 50 | 1.210 | 4.12 | 26.455 | 3.779 | 4.676 | 0.147 | 0.349 | 23.871 | 2.787 | 83.44 | 60.44 | 2365 | 2365 | 2.050 | 6.372 | -0.470 | 0.327 | 4.712 | 0.990 | 23.2 |
| 1400S137-97 | 33 | 1.703 | 5.79 | 36.565 | 5.224 | 4.634 | 0.186 | 0.331 | 36.434 | 4.748 | 93.82 | 80.77 | 6939 | 6939 | 5.871 | 8.397 | -0.447 | 0.314 | 4.667 | 0.991 | 27.7 |
| 1400S137-97 | 50 | 1.703 | 5.79 | 36.565 | 5.224 | 4.634 | 0.186 | 0.331 | 35.366 | 4.417 | 132.24 | 104.71 | 6939 | 6939 | 5.871 | 8.397 | -0.447 | 0.314 | 4.667 | 0.991 | 22.5 |
| 1400S162-54[1] | 33 | 1.009 | 3.43 | 23.302 | 3.329 | 4.805 | 0.218 | 0.464 | 21.103 | 2.496 | 49.32 | 39.61 | 1177 | 1177 | 1.078 | 8.980 | -0.667 | 0.454 | 4.873 | 0.981 | 36.6 |
| 1400S162-54[1] | 50 | 1.009 | 3.43 | 23.302 | 3.329 | 4.805 | 0.218 | 0.464 | 20.365 | 2.256 | 67.54 | 50.47 | 1177 | 1177 | 1.078 | 8.980 | -0.667 | 0.454 | 4.873 | 0.981 | 29.7 |
| 1400S162-68 | 33 | 1.263 | 4.30 | 28.952 | 4.136 | 4.787 | 0.262 | 0.456 | 27.357 | 3.357 | 66.33 | 55.97 | 2365 | 2365 | 2.141 | 10.966 | -0.654 | 0.447 | 4.853 | 0.982 | 36.2 |
| 1400S162-68 | 50 | 1.263 | 4.30 | 28.952 | 4.136 | 4.787 | 0.262 | 0.456 | 26.375 | 3.135 | 93.85 | 71.83 | 2365 | 2365 | 2.141 | 10.966 | -0.654 | 0.447 | 4.853 | 0.982 | 29.4 |
| 1400S162-97 | 33 | 1.779 | 6.05 | 40.115 | 5.731 | 4.748 | 0.340 | 0.437 | 39.965 | 5.248 | 103.71 | 93.84 | 6939 | 6939 | 6.134 | 14.651 | -0.628 | 0.433 | 4.810 | 0.983 | 35.3 |
| 1400S162-97 | 50 | 1.779 | 6.05 | 40.115 | 5.731 | 4.748 | 0.340 | 0.437 | 38.897 | 4.915 | 147.14 | 122.34 | 6939 | 6939 | 6.134 | 14.651 | -0.628 | 0.433 | 4.810 | 0.983 | 28.7 |
| 1400S162-118 | 33 | 2.152 | 7.32 | 47.928 | 6.847 | 4.719 | 0.385 | 0.423 | 47.928 | 6.659 | 131.59 | 123.83 | 12745 | 11287 | 11.065 | 17.032 | -0.609 | 0.422 | 4.777 | 0.984 | 34.7 |
| 1400S162-118 | 50 | 2.152 | 7.32 | 47.928 | 6.847 | 4.719 | 0.385 | 0.423 | 47.772 | 6.282 | 188.07 | 163.51 | 12745 | 11287 | 11.065 | 17.032 | -0.609 | 0.422 | 4.777 | 0.984 | 28.1 |
| 1400S200-54[1] | 33 | 1.066 | 3.63 | 25.951 | 3.707 | 4.935 | 0.406 | 0.617 | 23.767 | 2.866 | 56.63 | 47.05 | 1177 | 1177 | 1.138 | 16.355 | -0.946 | 0.633 | 5.062 | 0.965 | 47.0 |
| 1400S200-54[1] | 50 | 1.066 | 3.63 | 25.951 | 3.707 | 4.935 | 0.406 | 0.617 | 23.199 | 2.440 | 73.05 | 60.15 | 1177 | 1177 | 1.138 | 16.355 | -0.946 | 0.633 | 5.062 | 0.965 | 38.2 |
| 1400S200-68 | 33 | 1.335 | 4.54 | 32.284 | 4.612 | 4.918 | 0.494 | 0.608 | 30.684 | 3.824 | 75.56 | 65.77 | 2365 | 2365 | 2.262 | 20.083 | -0.932 | 0.625 | 5.043 | 0.966 | 46.7 |
| 1400S200-68 | 50 | 1.335 | 4.54 | 32.284 | 4.612 | 4.918 | 0.494 | 0.608 | 29.797 | 3.505 | 104.93 | 84.71 | 2365 | 2365 | 2.262 | 20.083 | -0.932 | 0.625 | 5.043 | 0.966 | 37.9 |
| 1400S200-97 | 33 | 1.881 | 6.40 | 44.853 | 6.408 | 4.883 | 0.655 | 0.590 | 44.683 | 5.917 | 116.93 | 108.69 | 6939 | 6939 | 6.484 | 27.156 | -0.904 | 0.609 | 5.001 | 0.967 | 45.9 |
| 1400S200-97 | 50 | 1.881 | 6.40 | 44.853 | 6.408 | 4.883 | 0.655 | 0.590 | 43.616 | 5.580 | 167.07 | 142.28 | 6939 | 6939 | 6.484 | 27.156 | -0.904 | 0.609 | 5.001 | 0.967 | 37.3 |
| 1400S200-118 | 33 | 2.276 | 7.75 | 53.698 | 7.671 | 4.857 | 0.755 | 0.576 | 53.698 | 7.480 | 147.81 | 142.48 | 12745 | 11287 | 11.704 | 31.861 | -0.883 | 0.598 | 4.970 | 0.968 | 45.4 |
| 1400S200-118 | 50 | 2.276 | 7.75 | 53.698 | 7.671 | 4.857 | 0.755 | 0.576 | 53.520 | 7.096 | 212.47 | 188.96 | 12745 | 11287 | 11.704 | 31.861 | -0.883 | 0.598 | 4.970 | 0.968 | 36.8 |
| 1400S250-54[1] | 33 | 1.122 | 3.82 | 28.702 | 4.100 | 5.057 | 0.707 | 0.794 | 26.758 | 2.927 | 57.83 | 50.91 | 1177 | 1177 | 1.198 | 27.675 | -1.272 | 0.835 | 5.275 | 0.942 | 58.6 |
| 1400S250-54[1] | 50 | 1.122 | 3.82 | 28.702 | 4.100 | 5.057 | 0.707 | 0.794 | 26.141 | 2.527 | 75.65 | 65.00 | 1177 | 1177 | 1.198 | 27.675 | -1.272 | 0.835 | 5.275 | 0.942 | 47.6 |
| 1400S250-68 | 33 | 1.406 | 4.78 | 35.743 | 5.106 | 5.042 | 0.865 | 0.784 | 34.239 | 4.145 | 81.90 | 71.03 | 2365 | 2365 | 2.383 | 34.118 | -1.257 | 0.827 | 5.255 | 0.943 | 58.3 |
| 1400S250-68 | 50 | 1.406 | 4.78 | 35.743 | 5.106 | 5.042 | 0.865 | 0.784 | 33.565 | 3.550 | 106.29 | 91.32 | 2365 | 2365 | 2.383 | 34.118 | -1.257 | 0.827 | 5.255 | 0.943 | 47.3 |
| 1400S250-97 | 33 | 1.983 | 6.75 | 49.764 | 7.109 | 5.010 | 1.160 | 0.765 | 49.579 | 6.611 | 130.64 | 117.38 | 6939 | 6939 | 6.835 | 46.520 | -1.225 | 0.811 | 5.214 | 0.945 | 57.6 |
| 1400S250-97 | 50 | 1.983 | 6.75 | 49.764 | 7.109 | 5.010 | 1.160 | 0.765 | 48.650 | 6.010 | 179.95 | 153.18 | 6939 | 6939 | 6.835 | 46.520 | -1.225 | 0.811 | 5.214 | 0.945 | 46.7 |
| 1400S250-118 | 33 | 2.400 | 8.17 | 59.676 | 8.525 | 4.986 | 1.352 | 0.750 | 59.676 | 8.330 | 164.61 | 154.26 | 12745 | 11287 | 12.342 | 54.927 | -1.203 | 0.798 | 5.184 | 0.946 | 57.1 |
| 1400S250-118 | 50 | 2.400 | 8.17 | 59.676 | 8.525 | 4.986 | 1.352 | 0.750 | 59.504 | 7.881 | 235.94 | 203.70 | 12745 | 11287 | 12.342 | 54.927 | -1.203 | 0.798 | 5.184 | 0.946 | 46.2 |
| 1400S300-54[1] | 33 | 1.193 | 4.06 | 32.017 | 4.574 | 5.180 | 1.194 | 1.000 | 30.124 | 3.281 | 64.84 | 57.84 | 1177 | 1177 | 1.274 | 46.187 | -1.689 | 1.090 | 5.540 | 0.907 | 71.9 |
| 1400S300-54[1] | 50 | 1.193 | 4.06 | 32.017 | 4.574 | 5.180 | 1.194 | 1.000 | 28.831 | 2.807 | 84.04 | 73.93 | 1177 | 1177 | 1.274 | 46.187 | -1.689 | 1.090 | 5.540 | 0.907 | 58.4 |
| 1400S300-68 | 33 | 1.495 | 5.09 | 39.911 | 5.702 | 5.167 | 1.469 | 0.991 | 38.530 | 4.476 | 88.45 | 80.19 | 2365 | 2365 | 2.534 | 57.119 | -1.673 | 1.081 | 5.520 | 0.908 | 71.6 |
| 1400S300-68 | 50 | 1.495 | 5.09 | 39.911 | 5.702 | 5.167 | 1.469 | 0.991 | 37.870 | 3.860 | 115.58 | 103.18 | 2365 | 2365 | 2.534 | 57.119 | -1.673 | 1.081 | 5.520 | 0.908 | 58.1 |
| 1400S300-97 | 33 | 2.110 | 7.18 | 55.688 | 7.955 | 5.138 | 1.992 | 0.972 | 55.525 | 7.344 | 145.13 | 131.26 | 6939 | 6939 | 7.273 | 78.400 | -1.640 | 1.064 | 5.480 | 0.910 | 70.9 |
| 1400S300-97 | 50 | 2.110 | 7.18 | 55.688 | 7.955 | 5.138 | 1.992 | 0.972 | 54.632 | 6.656 | 199.29 | 171.27 | 6939 | 6939 | 7.273 | 78.400 | -1.640 | 1.064 | 5.480 | 0.910 | 57.6 |
| 1400S300-118 | 33 | 2.556 | 8.70 | 66.892 | 9.556 | 5.116 | 2.342 | 0.957 | 66.892 | 9.358 | 184.91 | 171.77 | 12745 | 11287 | 13.141 | 93.036 | -1.615 | 1.051 | 5.450 | 0.912 | 70.5 |
| 1400S300-118 | 50 | 2.556 | 8.70 | 66.892 | 9.556 | 5.116 | 2.342 | 0.957 | 66.798 | 8.613 | 257.89 | 226.60 | 12745 | 11287 | 13.141 | 93.036 | -1.615 | 1.051 | 5.450 | 0.912 | 57.2 |
| 1400S350-54[1] | 33 | 1.278 | 4.35 | 35.830 | 5.119 | 5.295 | 1.947 | 1.234 | 35.659 | 3.823 | 75.54 | 67.75 | 1177 | 1177 | 1.365 | 76.252 | -2.207 | 1.400 | 5.868 | 0.859 | 87.1 |
| 1400S350-54[1] | 50 | 1.278 | 4.35 | 35.830 | 5.119 | 5.295 | 1.947 | 1.234 | 33.308 | 3.249 | 97.27 | 86.82 | 1177 | 1177 | 1.365 | 76.252 | -2.207 | 1.400 | 5.868 | 0.859 | 70.7 |
| 1400S350-68 | 33 | 1.602 | 5.45 | 44.707 | 6.387 | 5.283 | 2.406 | 1.226 | 44.707 | 5.700 | 112.64 | 93.26 | 2365 | 2365 | 2.715 | 94.534 | -2.190 | 1.391 | 5.848 | 0.860 | 86.8 |
| 1400S350-68 | 50 | 1.602 | 5.45 | 44.707 | 6.387 | 5.283 | 2.406 | 1.226 | 44.707 | 4.709 | 141.00 | 120.33 | 2365 | 2365 | 2.715 | 94.534 | -2.190 | 1.391 | 5.848 | 0.860 | 70.4 |
| 1400S350-97 | 33 | 2.262 | 7.70 | 62.507 | 8.930 | 5.257 | 3.296 | 1.207 | 62.507 | 8.905 | 175.98 | 150.81 | 6939 | 6939 | 7.799 | 130.430 | -2.156 | 1.373 | 5.808 | 0.862 | 86.2 |
| 1400S350-97 | 50 | 2.262 | 7.70 | 62.507 | 8.930 | 5.257 | 3.296 | 1.207 | 62.507 | 8.189 | 245.18 | 197.30 | 6939 | 6939 | 7.799 | 130.430 | -2.156 | 1.373 | 5.808 | 0.862 | 70.0 |
| 1400S350-118 | 33 | 2.742 | 9.33 | 75.200 | 10.743 | 5.237 | 3.903 | 1.193 | 75.200 | 10.743 | 212.29 | 195.97 | 12745 | 11287 | 14.099 | 155.387 | -2.130 | 1.360 | 5.778 | 0.864 | 85.9 |

Table 3 continued on next page

**TABLE 3—C-SECTION (STUD) SECTION PROPERTIES[2,3,4,5] (Continued)**

| Section | Fy | Gross Properties | | | | | | | Effective Properties | | | | | | Torsional Properties | | | | | β | Lu |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Area | W | Ixx | Sxx | Rx | Iyy | Ry | Ixx | Sxx | Ma-L | Ma-D | Vag | VaNet | Jx1000 | Cw | Xo | m | Ro | | |
| | (ksi) | ($in^2$) | (lb/ft) | ($in^4$) | ($in^3$) | (in) | ($in^4$) | (in) | ($in^4$) | ($in^3$) | (in-k) | (in-k) | (lb) | (lb) | ($in^4$) | ($in^6$) | (in) | (in) | (in) | | (in) |
| 1400S350-118 | 50 | 2.742 | 9.33 | 75.200 | 10.743 | 5.237 | 3.903 | 1.193 | 75.200 | 10.354 | 310.00 | 259.12 | 12745 | 11287 | 14.099 | 155.387 | -2.130 | 1.360 | 5.778 | 0.864 | 69.6 |
| 1600S162-68[1] | 33 | 1.406 | 4.78 | 40.913 | 5.114 | 5.394 | 0.268 | 0.436 | 37.533 | 3.896 | 76.99 | 61.87 | 2062 | 2062 | 2.383 | 14.816 | -0.601 | 0.415 | 5.445 | 0.988 | 35.2 |
| 1600S162-68[1] | 50 | 1.406 | 4.78 | 40.913 | 5.114 | 5.394 | 0.268 | 0.436 | 35.986 | 3.624 | 108.49 | 78.88 | 2062 | 2062 | 2.383 | 14.816 | -0.601 | 0.415 | 5.445 | 0.988 | 28.6 |
| 1600S162-97 | 33 | 1.983 | 6.75 | 56.824 | 7.103 | 5.354 | 0.347 | 0.418 | 55.563 | 6.173 | 121.97 | 105.56 | 6043 | 6043 | 6.835 | 19.807 | -0.577 | 0.401 | 5.401 | 0.989 | 34.4 |
| 1600S162-97 | 50 | 1.983 | 6.75 | 56.824 | 7.103 | 5.354 | 0.347 | 0.418 | 53.725 | 5.738 | 171.79 | 136.38 | 6043 | 6043 | 6.835 | 19.807 | -0.577 | 0.401 | 5.401 | 0.989 | 27.9 |
| 1600S162-118 | 33 | 2.400 | 8.17 | 68.014 | 8.502 | 5.323 | 0.393 | 0.405 | 68.014 | 7.920 | 156.50 | 141.09 | 11088 | 11088 | 12.342 | 23.035 | -0.559 | 0.391 | 5.368 | 0.989 | 33.7 |
| 1600S162-118 | 50 | 2.400 | 8.17 | 68.014 | 8.502 | 5.323 | 0.393 | 0.405 | 66.535 | 7.399 | 221.51 | 184.21 | 11088 | 11088 | 12.342 | 23.035 | -0.559 | 0.391 | 5.368 | 0.989 | 27.3 |
| 1600S200-68[1] | 33 | 1.477 | 5.03 | 45.291 | 5.661 | 5.537 | 0.506 | 0.585 | 41.916 | 4.431 | 87.56 | 73.25 | 2062 | 2062 | 2.503 | 27.155 | -0.862 | 0.584 | 5.634 | 0.977 | 45.7 |
| 1600S200-68[1] | 50 | 1.477 | 5.03 | 45.291 | 5.661 | 5.537 | 0.506 | 0.585 | 40.523 | 4.045 | 121.11 | 93.73 | 2062 | 2062 | 2.503 | 27.155 | -0.862 | 0.584 | 5.634 | 0.977 | 37.1 |
| 1600S200-97 | 33 | 2.084 | 7.09 | 63.050 | 7.881 | 5.500 | 0.670 | 0.567 | 61.757 | 6.938 | 137.10 | 123.13 | 6043 | 6043 | 7.186 | 36.744 | -0.835 | 0.569 | 5.592 | 0.978 | 44.9 |
| 1600S200-97 | 50 | 2.084 | 7.09 | 63.050 | 7.881 | 5.500 | 0.670 | 0.567 | 59.933 | 6.500 | 194.61 | 159.78 | 6043 | 6043 | 7.186 | 36.744 | -0.835 | 0.569 | 5.592 | 0.978 | 36.4 |
| 1600S200-118 | 33 | 2.525 | 8.59 | 75.601 | 9.450 | 5.472 | 0.773 | 0.553 | 75.601 | 8.859 | 175.05 | 163.28 | 11088 | 11088 | 12.981 | 43.132 | -0.815 | 0.558 | 5.560 | 0.979 | 44.3 |
| 1600S200-118 | 50 | 2.525 | 8.59 | 75.601 | 9.450 | 5.472 | 0.773 | 0.553 | 74.084 | 8.331 | 249.44 | 214.23 | 11088 | 11088 | 12.981 | 43.132 | -0.815 | 0.558 | 5.560 | 0.979 | 35.9 |
| 1600S250-68[1] | 33 | 1.549 | 5.27 | 49.814 | 6.227 | 5.672 | 0.889 | 0.758 | 46.607 | 4.792 | 94.70 | 79.79 | 2062 | 2062 | 2.624 | 46.230 | -1.167 | 0.778 | 5.840 | 0.960 | 57.3 |
| 1600S250-68[1] | 50 | 1.549 | 5.27 | 49.814 | 6.227 | 5.672 | 0.889 | 0.758 | 45.550 | 4.092 | 122.51 | 102.05 | 2062 | 2062 | 2.624 | 46.230 | -1.167 | 0.778 | 5.840 | 0.960 | 46.5 |
| 1600S250-97 | 33 | 2.186 | 7.44 | 69.476 | 8.685 | 5.638 | 1.192 | 0.738 | 68.160 | 7.728 | 152.72 | 133.82 | 6043 | 6043 | 7.536 | 63.082 | -1.138 | 0.762 | 5.799 | 0.962 | 56.5 |
| 1600S250-97 | 50 | 2.186 | 7.44 | 69.476 | 8.685 | 5.638 | 1.192 | 0.738 | 66.577 | 6.983 | 209.06 | 173.43 | 6043 | 6043 | 7.536 | 63.082 | -1.138 | 0.762 | 5.799 | 0.962 | 45.9 |
| 1600S250-118 | 33 | 2.649 | 9.01 | 83.427 | 10.428 | 5.612 | 1.389 | 0.724 | 83.427 | 9.827 | 194.19 | 177.59 | 11088 | 11088 | 13.620 | 74.524 | -1.116 | 0.750 | 5.768 | 0.963 | 56.0 |
| 1600S250-118 | 50 | 2.649 | 9.01 | 83.427 | 10.428 | 5.612 | 1.389 | 0.724 | 81.923 | 9.222 | 276.12 | 232.57 | 11088 | 11088 | 13.620 | 74.524 | -1.116 | 0.750 | 5.768 | 0.963 | 45.4 |
| 1600S300-68[1] | 33 | 1.638 | 5.57 | 55.289 | 6.911 | 5.810 | 1.514 | 0.962 | 52.293 | 5.169 | 102.14 | 90.79 | 2062 | 2062 | 2.775 | 77.327 | -1.562 | 1.022 | 6.093 | 0.934 | 70.6 |
| 1600S300-68[1] | 50 | 1.638 | 5.57 | 55.289 | 6.911 | 5.810 | 1.514 | 0.962 | 51.250 | 4.446 | 133.12 | 116.29 | 2062 | 2062 | 2.775 | 77.327 | -1.562 | 1.022 | 6.093 | 0.934 | 57.3 |
| 1600S300-97 | 33 | 2.313 | 7.87 | 77.262 | 9.658 | 5.779 | 2.054 | 0.942 | 75.986 | 8.564 | 169.23 | 150.44 | 6043 | 6043 | 7.975 | 106.226 | -1.531 | 1.005 | 6.053 | 0.936 | 69.9 |
| 1600S300-97 | 50 | 2.313 | 7.87 | 77.262 | 9.658 | 5.779 | 2.054 | 0.942 | 74.472 | 7.719 | 231.09 | 195.17 | 6043 | 6043 | 7.975 | 106.226 | -1.531 | 1.005 | 6.053 | 0.936 | 56.7 |
| 1600S300-118 | 33 | 2.804 | 9.54 | 92.914 | 11.614 | 5.756 | 2.414 | 0.928 | 92.914 | 11.003 | 217.43 | 198.52 | 11088 | 11088 | 14.418 | 126.134 | -1.507 | 0.993 | 6.022 | 0.937 | 69.4 |
| 1600S300-118 | 50 | 2.804 | 9.54 | 92.914 | 11.614 | 5.756 | 2.414 | 0.928 | 91.558 | 10.053 | 300.98 | 260.10 | 11088 | 11088 | 14.418 | 126.134 | -1.507 | 0.993 | 6.022 | 0.937 | 56.3 |
| 1600S350-68[1] | 33 | 1.745 | 5.94 | 61.622 | 7.703 | 5.943 | 2.490 | 1.195 | 58.537 | 6.041 | 119.38 | 106.38 | 2062 | 2062 | 2.957 | 127.370 | -2.055 | 1.322 | 6.401 | 0.897 | 85.8 |
| 1600S350-68[1] | 50 | 1.745 | 5.94 | 61.622 | 7.703 | 5.943 | 2.490 | 1.195 | 57.437 | 5.180 | 155.08 | 136.70 | 2062 | 2062 | 2.957 | 127.370 | -2.055 | 1.322 | 6.401 | 0.897 | 69.7 |
| 1600S350-97 | 33 | 2.466 | 8.39 | 86.270 | 10.784 | 5.915 | 3.410 | 1.176 | 84.926 | 9.771 | 193.09 | 173.68 | 6043 | 6043 | 8.501 | 175.896 | -2.022 | 1.304 | 6.361 | 0.899 | 85.2 |
| 1600S350-97 | 50 | 2.466 | 8.39 | 86.270 | 10.784 | 5.915 | 3.410 | 1.176 | 83.691 | 8.382 | 250.96 | 226.04 | 6043 | 6043 | 8.501 | 175.896 | -2.022 | 1.304 | 6.361 | 0.899 | 69.1 |
| 1600S350-118 | 33 | 2.990 | 10.18 | 103.892 | 12.987 | 5.894 | 4.038 | 1.162 | 103.892 | 12.367 | 244.38 | 227.20 | 11088 | 11088 | 15.376 | 209.692 | -1.998 | 1.291 | 6.331 | 0.900 | 84.8 |
| 1600S350-118 | 50 | 2.990 | 10.18 | 103.892 | 12.987 | 5.894 | 4.038 | 1.162 | 102.530 | 11.305 | 338.47 | 298.58 | 11088 | 11088 | 15.376 | 209.692 | -1.998 | 1.291 | 6.331 | 0.900 | 68.8 |

For **SI:** 1 inch = 25.4mm, 1 pound = 4.4482 N.

[1]Web height to thickness ratio, h/t, exceeds 200. Web must have bearing stiffeners in accordance with AISI S100.
[2]Gross properties and torsional properties are based on the full-unreduced cross section of the studs, away from web punch-outs.
[3]Effective properties are based on punched sections.
[4]Use the effective moment of inertia for deflection calculations.
[5]Ma-D based on Kϕ = 0.

***SYMBOLS:***

Ixx=Strong axis moment of inertia.
Rx=Strong axis radius of gyration.
Iyy=Weak axis moment of inertia.
Ry=Weak axis radius of gyration.
Sxx=Strong axis section modulus.
J=St. Venant torsion constant.
Cw=Warping constant.
Xo=Distance from shear center to neutral axis.
m = distance from shear center to mid-plane of web.
Ro = Radii of gyration.
β=Torsional flexural constant.
Vag = Allowable shear at unpunched web section.
VaNet = Allowable shear of punched web section.
Ma – L = Allowable moment based on local buckling
Ma-D = Allowable moment based on distortional buckling.
Kϕ = Distortional buckling moment (Ma-D) is calculation without the beneficial effect of sheathing to rotational stiffness, Kϕ = 0.
Lu = Critical unbraced length for lateral-torsional buckling. Moments considered fully braced when unbraced length is less than Lu.

**TABLE 4–CHANNEL (TRACK) SECTION PROPERTIES**

| Section | Gross Properties[1] | | | | | | 33 ksi Effective Properties[2] | | | | 50 ksi Effective Properties[2] | | | | Torsional Properties | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Area | Weight | Ixx ($in^4$) | Rx (in) | Iyy ($in^4$) | Ry (in) | Ixx ($in^4$) | Sxx ($in^3$) | Ma (in-k) | Va (lb) | Ixx ($in^4$) | Sxx ($in^3$) | Ma (in-k) | Va (lb) | Jx1000 ($in^4$) | Cw ($in^6$) | Xo (in) | Ro (in) | ß |
| 162T125-18 | 0.077 | 0.26 | 0.041 | 0.733 | 0.013 | 0.411 | 0.030 | 0.025 | 0.50 | 302 | ---- | ---- | ---- | ----- | 0.009 | 0.007 | -0.878 | 1.215 | 0.478 |
| 162T125-27 | 0.117 | 0.40 | 0.063 | 0.735 | 0.020 | 0.410 | 0.050 | 0.044 | 0.87 | 541 | ---- | ---- | ---- | ----- | 0.031 | 0.010 | -0.872 | 1.211 | 0.482 |
| 162T125-30 | 0.129 | 0.44 | 0.070 | 0.735 | 0.022 | 0.409 | 0.057 | 0.050 | 1.00 | 597 | ---- | ---- | ---- | ----- | 0.042 | 0.012 | -0.870 | 1.210 | 0.483 |
| 162T125-33 | 0.143 | 0.49 | 0.077 | 0.736 | 0.024 | 0.408 | 0.066 | 0.058 | 1.15 | 663 | ---- | ---- | ---- | ----- | 0.057 | 0.013 | -0.868 | 1.209 | 0.484 |
| 162T125-43 | 0.186 | 0.63 | 0.101 | 0.737 | 0.031 | 0.407 | 0.093 | 0.085 | 1.68 | 867 | ---- | ---- | ---- | ----- | 0.126 | 0.017 | -0.863 | 1.206 | 0.488 |
| 162T125-54 | 0.233 | 0.79 | 0.129 | 0.746 | 0.038 | 0.404 | 0.126 | 0.119 | 2.36 | 1079 | 0.120 | 0.109 | 3.27 | 1634 | 0.249 | 0.021 | -0.856 | 1.205 | 0.496 |
| 162T125-68 | 0.293 | 1.00 | 0.168 | 0.757 | 0.047 | 0.401 | 0.168 | 0.168 | 3.33 | 1339 | 0.166 | 0.155 | 4.65 | 2029 | 0.497 | 0.028 | -0.846 | 1.205 | 0.506 |
| 162T125-97 | 0.417 | 1.42 | 0.255 | 0.781 | 0.065 | 0.395 | 0.255 | 0.257 | 5.81 | 1853 | 0.255 | 0.257 | 7.70 | 2808 | 1.439 | 0.042 | -0.827 | 1.204 | 0.528 |
| 162T150-27 | 0.131 | 0.45 | 0.074 | 0.75 | 0.032 | 0.495 | 0.055 | 0.045 | 0.90 | 541 | ---- | ---- | ---- | ----- | 0.035 | 0.017 | -1.100 | 1.420 | 0.400 |
| 162T150-30 | 0.144 | 0.49 | 0.081 | 0.751 | 0.035 | 0.494 | 0.062 | 0.052 | 1.03 | 597 | ---- | ---- | ---- | ----- | 0.047 | 0.019 | -1.098 | 1.419 | 0.401 |
| 162T150-33 | 0.16 | 0.54 | 0.09 | 0.751 | 0.039 | 0.494 | 0.072 | 0.060 | 1.19 | 663 | ---- | ---- | ---- | ----- | 0.064 | 0.021 | -1.096 | 1.418 | 0.402 |
| 162T150-43 | 0.208 | 0.71 | 0.118 | 0.753 | 0.050 | 0.492 | 0.102 | 0.089 | 1.75 | 867 | ---- | ---- | ---- | ----- | 0.141 | 0.027 | -1.091 | 1.414 | 0.405 |
| 162T150-54 | 0.261 | 0.89 | 0.151 | 0.762 | 0.063 | 0.490 | 0.140 | 0.126 | 2.48 | 1079 | 0.132 | 0.114 | 3.42 | 1634 | 0.279 | 0.035 | -1.083 | 1.412 | 0.411 |
| 162T150-68 | 0.329 | 1.12 | 0.197 | 0.774 | 0.078 | 0.487 | 0.194 | 0.180 | 3.55 | 1339 | 0.185 | 0.164 | 4.91 | 2029 | 0.557 | 0.046 | -1.073 | 1.410 | 0.421 |
| 162T150-97 | 0.468 | 1.59 | 0.299 | 0.800 | 0.108 | 0.481 | 0.299 | 0.302 | 5.97 | 1853 | 0.299 | 0.283 | 8.48 | 2808 | 1.614 | 0.070 | -1.053 | 1.407 | 0.440 |
| 162T200-33 | 0.194 | 0.66 | 0.116 | 0.773 | 0.085 | 0.660 | 0.081 | 0.063 | 1.25 | 663 | ---- | ---- | ---- | ----- | 0.078 | 0.047 | -1.565 | 1.866 | 0.297 |
| 162T200-43 | 0.253 | 0.86 | 0.152 | 0.775 | 0.110 | 0.658 | 0.117 | 0.094 | 1.85 | 867 | ---- | ---- | ---- | ----- | 0.172 | 0.061 | -1.559 | 1.861 | 0.298 |
| 162T200-54 | 0.318 | 1.08 | 0.196 | 0.785 | 0.137 | 0.656 | 0.164 | 0.134 | 2.65 | 1079 | 0.153 | 0.121 | 3.62 | 1634 | 0.339 | 0.078 | -1.551 | 1.858 | 0.303 |
| 162T200-68 | 0.400 | 1.36 | 0.255 | 0.799 | 0.171 | 0.653 | 0.232 | 0.195 | 3.86 | 1339 | 0.218 | 0.176 | 5.26 | 2029 | 0.678 | 0.102 | -1.540 | 1.854 | 0.310 |
| 162T200-97 | 0.570 | 1.94 | 0.389 | 0.827 | 0.239 | 0.648 | 0.389 | 0.345 | 6.82 | 1853 | 0.373 | 0.313 | 9.38 | 2808 | 1.965 | 0.157 | -1.519 | 1.846 | 0.323 |
| 250T125-18 | 0.094 | 0.32 | 0.103 | 1.051 | 0.015 | 0.400 | 0.078 | 0.045 | 0.90 | 249 | ---- | ---- | ---- | ----- | 0.011 | 0.018 | -0.769 | 1.362 | 0.681 |
| 250T125-27 | 0.141 | 0.48 | 0.157 | 1.053 | 0.022 | 0.398 | 0.129 | 0.079 | 1.56 | 685 | ---- | ---- | ---- | ----- | 0.038 | 0.027 | -0.763 | 1.360 | 0.685 |
| 250T125-30 | 0.156 | 0.53 | 0.173 | 1.053 | 0.025 | 0.397 | 0.145 | 0.090 | 1.77 | 832 | ---- | ---- | ---- | ----- | 0.051 | 0.03 | -0.762 | 1.359 | 0.686 |
| 250T125-33 | 0.173 | 0.59 | 0.192 | 1.054 | 0.027 | 0.397 | 0.166 | 0.103 | 2.03 | 1024 | ---- | ---- | ---- | ----- | 0.069 | 0.033 | -0.76 | 1.358 | 0.687 |
| 250T125-43 | 0.225 | 0.77 | 0.250 | 1.055 | 0.035 | 0.395 | 0.231 | 0.147 | 2.91 | 1356 | ---- | ---- | ---- | ----- | 0.153 | 0.042 | -0.755 | 1.356 | 0.690 |
| 250T125-54 | 0.282 | 0.96 | 0.318 | 1.062 | 0.043 | 0.392 | 0.310 | 0.203 | 4.01 | 1692 | 0.297 | 0.188 | 5.64 | 2563 | 0.301 | 0.054 | -0.749 | 1.357 | 0.696 |
| 250T125-68 | 0.355 | 1.21 | 0.408 | 1.072 | 0.054 | 0.389 | 0.408 | 0.281 | 5.56 | 2111 | 0.402 | 0.262 | 7.85 | 3199 | 0.602 | 0.069 | -0.740 | 1.360 | 0.704 |
| 250T125-97 | 0.506 | 1.72 | 0.604 | 1.092 | 0.074 | 0.383 | 0.604 | 0.423 | 9.56 | 2954 | 0.604 | 0.423 | 12.67 | 4476 | 1.745 | 0.101 | -0.724 | 1.365 | 0.719 |
| 250T150-27 | 0.156 | 0.53 | 0.181 | 1.078 | 0.037 | 0.486 | 0.139 | 0.082 | 1.61 | 685 | ---- | ---- | ---- | ----- | 0.042 | 0.044 | -0.976 | 1.534 | 0.595 |
| 250T150-30 | 0.172 | 0.58 | 0.199 | 1.078 | 0.040 | 0.486 | 0.157 | 0.093 | 1.83 | 832 | ---- | ---- | ---- | ----- | 0.056 | 0.049 | -0.975 | 1.533 | 0.595 |
| 250T150-33 | 0.190 | 0.65 | 0.221 | 1.079 | 0.045 | 0.485 | 0.179 | 0.107 | 2.11 | 1024 | ---- | ---- | ---- | ----- | 0.076 | 0.054 | -0.973 | 1.532 | 0.596 |
| 250T150-43 | 0.248 | 0.84 | 0.289 | 1.080 | 0.058 | 0.483 | 0.252 | 0.154 | 3.03 | 1356 | ---- | ---- | ---- | ----- | 0.168 | 0.070 | -0.968 | 1.529 | 0.599 |
| 250T150-54 | 0.311 | 1.06 | 0.368 | 1.088 | 0.072 | 0.481 | 0.342 | 0.213 | 4.22 | 1692 | 0.325 | 0.197 | 5.89 | 2563 | 0.332 | 0.089 | -0.961 | 1.529 | 0.605 |
| 250T150-68 | 0.391 | 1.33 | 0.472 | 1.099 | 0.089 | 0.478 | 0.465 | 0.299 | 5.92 | 2111 | 0.445 | 0.276 | 8.27 | 3199 | 0.663 | 0.114 | -0.953 | 1.531 | 0.613 |
| 250T150-97 | 0.557 | 1.90 | 0.701 | 1.121 | 0.124 | 0.471 | 0.701 | 0.491 | 9.69 | 2954 | 0.701 | 0.463 | 13.86 | 4476 | 1.921 | 0.168 | -0.935 | 1.534 | 0.629 |
| 250T200-33 | 0.225 | 0.76 | 0.28 | 1.117 | 0.097 | 0.658 | 0.203 | 0.112 | 2.22 | 1024 | ---- | ---- | ---- | ----- | 0.09 | 0.118 | -1.418 | 1.921 | 0.455 |
| 250T200-43 | 0.293 | 1.00 | 0.366 | 1.118 | 0.126 | 0.657 | 0.288 | 0.163 | 3.21 | 1356 | ---- | ---- | ---- | ----- | 0.198 | 0.153 | -1.413 | 1.918 | 0.457 |
| 250T200-54 | 0.367 | 1.25 | 0.466 | 1.127 | 0.157 | 0.654 | 0.396 | 0.228 | 4.51 | 1692 | 0.371 | 0.209 | 6.25 | 2563 | 0.392 | 0.195 | -1.405 | 1.917 | 0.462 |
| 250T200-68 | 0.462 | 1.57 | 0.600 | 1.139 | 0.196 | 0.652 | 0.548 | 0.324 | 6.41 | 2111 | 0.517 | 0.296 | 8.86 | 3199 | 0.783 | 0.251 | -1.396 | 1.916 | 0.469 |
| 250T200-97 | 0.659 | 2.24 | 0.893 | 1.165 | 0.275 | 0.646 | 0.893 | 0.556 | 10.99 | 2954 | 0.856 | 0.510 | 15.27 | 4476 | 2.271 | 0.374 | -1.376 | 1.915 | 0.484 |
| 250T250-43 | 0.338 | 1.15 | 0.443 | 1.146 | 0.230 | 0.826 | 0.318 | 0.169 | 3.34 | 1356 | ---- | ---- | ---- | ----- | 0.229 | 0.283 | -1.873 | 2.346 | 0.362 |
| 250T250-54 | 0.424 | 1.44 | 0.565 | 1.155 | 0.287 | 0.824 | 0.440 | 0.238 | 4.70 | 1692 | 0.410 | 0.217 | 6.50 | 2563 | 0.453 | 0.361 | -1.865 | 2.343 | 0.366 |
| 250T250-68 | 0.534 | 1.82 | 0.728 | 1.168 | 0.360 | 0.821 | 0.616 | 0.341 | 6.74 | 2111 | 0.576 | 0.310 | 9.27 | 3199 | 0.904 | 0.466 | -1.855 | 2.341 | 0.372 |
| 250T250-97 | 0.761 | 2.59 | 1.086 | 1.195 | 0.506 | 0.815 | 1.028 | 0.596 | 11.79 | 2954 | 0.972 | 0.541 | 16.20 | 4476 | 2.622 | 0.696 | -1.834 | 2.336 | 0.384 |
| 250T300-54 | 0.480 | 1.63 | 0.664 | 1.176 | 0.470 | 0.989 | 0.477 | 0.245 | 4.85 | 1692 | 0.443 | 0.223 | 6.69 | 2563 | 0.513 | 0.599 | -2.335 | 2.795 | 0.302 |
| 250T300-68 | 0.605 | 2.06 | 0.856 | 1.189 | 0.589 | 0.987 | 0.674 | 0.353 | 6.98 | 2111 | 0.626 | 0.319 | 9.56 | 3199 | 1.025 | 0.773 | -2.324 | 2.791 | 0.307 |
| 250T300-97 | 0.862 | 2.93 | 1.279 | 1.218 | 0.830 | 0.981 | 1.144 | 0.625 | 12.35 | 2954 | 1.072 | 0.563 | 16.86 | 4476 | 2.973 | 1.158 | -2.303 | 2.784 | 0.316 |
| 350T125-18 | 0.113 | 0.38 | 0.219 | 1.394 | 0.016 | 0.383 | 0.174 | 0.063 | 1.25 | 175 | ---- | ---- | ---- | ----- | 0.013 | 0.038 | -0.675 | 1.595 | 0.821 |
| 350T125-27 | 0.170 | 0.58 | 0.331 | 1.396 | 0.025 | 0.381 | 0.277 | 0.128 | 2.53 | 590 | ---- | ---- | ---- | ----- | 0.045 | 0.057 | -0.670 | 1.595 | 0.823 |
| 350T125-30 | 0.187 | 0.64 | 0.365 | 1.396 | 0.027 | 0.380 | 0.312 | 0.145 | 2.86 | 790 | ---- | ---- | ---- | ----- | 0.061 | 0.063 | -0.669 | 1.594 | 0.824 |
| 350T125-33 | 0.207 | 0.71 | 0.405 | 1.397 | 0.030 | 0.379 | 0.354 | 0.165 | 3.27 | 1024 | ---- | ---- | ---- | ----- | 0.083 | 0.070 | -0.668 | 1.594 | 0.824 |
| 350T125-43 | 0.270 | 0.92 | 0.528 | 1.397 | 0.038 | 0.377 | 0.490 | 0.233 | 4.61 | 1739 | ---- | ---- | ---- | ----- | 0.183 | 0.090 | -0.663 | 1.592 | 0.826 |
| 350T125-54 | 0.339 | 1.15 | 0.668 | 1.404 | 0.048 | 0.375 | 0.651 | 0.317 | 6.26 | 2392 | 0.626 | 0.297 | 8.89 | 3372 | 0.362 | 0.114 | -0.658 | 1.595 | 0.830 |
| 350T125-68 | 0.427 | 1.45 | 0.851 | 1.412 | 0.059 | 0.372 | 0.851 | 0.433 | 8.55 | 2994 | 0.839 | 0.407 | 12.18 | 4536 | 0.723 | 0.144 | -0.650 | 1.599 | 0.835 |
| 350T125-97 | 0.608 | 2.07 | 1.243 | 1.430 | 0.081 | 0.366 | 1.243 | 0.645 | 14.56 | 4213 | 1.243 | 0.645 | 19.30 | 6383 | 2.096 | 0.209 | -0.636 | 1.607 | 0.844 |
| 350T125-118 | 0.608 | 2.07 | 1.243 | 1.430 | 0.081 | 0.366 | 1.243 | 0.645 | 14.56 | 4213 | 1.243 | 0.645 | 19.30 | 6383 | 2.096 | 0.209 | -0.636 | 1.607 | 0.844 |
| 350T150-27 | 0.184 | 0.63 | 0.377 | 1.431 | 0.041 | 0.470 | 0.298 | 0.132 | 2.62 | 590 | ---- | ---- | ---- | ----- | 0.049 | 0.094 | -0.869 | 1.739 | 0.750 |
| 350T150-30 | 0.203 | 0.69 | 0.416 | 1.432 | 0.045 | 0.469 | 0.336 | 0.150 | 2.96 | 790 | ---- | ---- | ---- | ----- | 0.066 | 0.103 | -0.867 | 1.739 | 0.751 |
| 350T150-33 | 0.225 | 0.76 | 0.461 | 1.432 | 0.049 | 0.469 | 0.382 | 0.171 | 3.39 | 1024 | ---- | ---- | ---- | ----- | 0.09 | 0.114 | -0.866 | 1.738 | 0.752 |
| 350T150-43 | 0.293 | 1.00 | 0.601 | 1.433 | 0.064 | 0.467 | 0.531 | 0.243 | 4.80 | 1739 | ---- | ---- | ---- | ----- | 0.198 | 0.148 | -0.861 | 1.736 | 0.754 |
| 350T150-54 | 0.367 | 1.25 | 0.761 | 1.440 | 0.079 | 0.465 | 0.712 | 0.332 | 6.57 | 2392 | 0.679 | 0.310 | 9.28 | 3372 | 0.392 | 0.187 | -0.855 | 1.738 | 0.758 |
| 350T150-68 | 0.462 | 1.57 | 0.972 | 1.450 | 0.099 | 0.462 | 0.957 | 0.459 | 9.07 | 2994 | 0.919 | 0.428 | 12.81 | 4536 | 0.783 | 0.238 | -0.847 | 1.741 | 0.763 |
| 350T150-97 | 0.659 | 2.24 | 1.422 | 1.469 | 0.136 | 0.455 | 1.422 | 0.738 | 14.58 | 4213 | 1.422 | 0.701 | 20.98 | 6383 | 2.271 | 0.346 | -0.831 | 1.748 | 0.774 |
| 350T150-118 | 0.659 | 2.24 | 1.422 | 1.469 | 0.136 | 0.455 | 1.422 | 0.738 | 14.58 | 4213 | 1.422 | 0.701 | 20.98 | 6383 | 2.271 | 0.346 | -0.831 | 1.748 | 0.774 |
| 350T200-33 | 0.259 | 0.88 | 0.574 | 1.487 | 0.108 | 0.647 | 0.428 | 0.181 | 3.57 | 1024 | ---- | ---- | ---- | ----- | 0.103 | 0.249 | -1.285 | 2.069 | 0.614 |
| 350T200-43 | 0.338 | 1.15 | 0.749 | 1.489 | 0.140 | 0.645 | 0.600 | 0.257 | 5.09 | 1739 | ---- | ---- | ---- | ----- | 0.229 | 0.323 | -1.280 | 2.066 | 0.616 |
| 350T200-54 | 0.424 | 1.44 | 0.949 | 1.496 | 0.175 | 0.642 | 0.814 | 0.355 | 7.01 | 2392 | 0.770 | 0.329 | 9.85 | 3372 | 0.453 | 0.409 | -1.273 | 2.067 | 0.621 |
| 350T200-68 | 0.534 | 1.82 | 1.213 | 1.508 | 0.218 | 0.639 | 1.112 | 0.496 | 9.80 | 2994 | 1.054 | 0.458 | 13.71 | 4536 | 0.904 | 0.522 | -1.264 | 2.069 | 0.626 |
| 350T200-97 | 0.761 | 2.59 | 1.780 | 1.530 | 0.305 | 0.633 | 1.779 | 0.831 | 16.41 | 4213 | 1.708 | 0.769 | 23.01 | 6383 | 2.622 | 0.765 | -1.247 | 2.073 | 0.638 |
| 350T200-118 | 0.761 | 2.59 | 1.780 | 1.530 | 0.305 | 0.633 | 1.779 | 0.831 | 16.41 | 4213 | 1.708 | 0.769 | 23.01 | 6383 | 2.622 | 0.765 | -1.247 | 2.073 | 0.638 |
| 350T250-43 | 0.383 | 1.30 | 0.896 | 1.530 | 0.257 | 0.819 | 0.659 | 0.268 | 5.29 | 1739 | ---- | ---- | ---- | ----- | 0.26 | 0.593 | -1.719 | 2.443 | 0.505 |
| 350T250-54 | 0.480 | 1.63 | 1.137 | 1.538 | 0.321 | 0.817 | 0.900 | 0.371 | 7.33 | 2392 | 0.846 | 0.343 | 10.26 | 3372 | 0.513 | 0.752 | -1.712 | 2.442 | 0.509 |
| 350T250-68 | 0.605 | 2.06 | 1.454 | 1.550 | 0.401 | 0.814 | 1.241 | 0.522 | 10.31 | 2994 | 1.168 | 0.479 | 14.35 | 4536 | 1.025 | 0.961 | -1.703 | 2.443 | 0.514 |
| 350T250-97 | 0.862 | 2.93 | 2.139 | 1.575 | 0.563 | 0.808 | 2.027 | 0.889 | 17.56 | 4213 | 1.924 | 0.815 | 24.39 | 6383 | 2.973 | 1.413 | -1.684 | 2.443 | 0.525 |
| 350T250-118 | 0.862 | 2.93 | 2.139 | 1.575 | 0.563 | 0.808 | 2.027 | 0.889 | 17.56 | 4213 | 1.924 | 0.815 | 24.39 | 6383 | 2.973 | 1.413 | -1.684 | 2.443 | 0.525 |
| 350T300-54 | 0.537 | 1.83 | 1.324 | 1.570 | 0.525 | 0.989 | 0.974 | 0.383 | 7.57 | 2392 | 0.912 | 0.353 | 10.57 | 3372 | 0.573 | 1.238 | -2.165 | 2.851 | 0.424 |
| 350T300-68 | 0.676 | 2.30 | 1.695 | 1.583 | 0.657 | 0.986 | 1.352 | 0.541 | 10.69 | 2994 | 1.265 | 0.495 | 14.83 | 4536 | 1.146 | 1.585 | -2.155 | 2.850 | 0.428 |
| 350T300-97 | 0.964 | 3.28 | 2.497 | 1.610 | 0.926 | 0.980 | 2.242 | 0.931 | 18.40 | 4213 | 2.110 | 0.848 | 25.40 | 6383 | 3.323 | 2.336 | -2.135 | 2.848 | 0.438 |
| 350T300-118 | 0.964 | 3.28 | 2.497 | 1.610 | 0.926 | 0.980 | 2.242 | 0.931 | 18.40 | 4213 | 2.110 | 0.848 | 25.40 | 6383 | 3.323 | 2.336 | -2.135 | 2.848 | 0.438 |

Table 4 continued on next page.

**TABLE 4–CHANNEL (TRACK) SECTION PROPERTIES (Continued)**

| Section | Gross Properties[1] | | | | | | 33 ksi Effective Properties[2] | | | | 50 ksi Effective Properties[2] | | | | Torsional Properties | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Area | Weight | Ixx ($in^4$) | Rx (in) | Iyy ($in^4$) | Ry (in) | Ixx ($in^4$) | Sxx ($in^3$) | Ma (in-k) | Va (lb) | Ixx ($in^4$) | Sxx ($in^3$) | Ma (in-k) | Va (lb) | Jx1000 ($in^4$) | Cw ($in^6$) | Xo (in) | Ro (in) | ß |
| 350T400-68 | 0.819 | 2.79 | 2.177 | 1.631 | 1.427 | 1.320 | 1.536 | 0.568 | 11.22 | 2994 | 1.427 | 0.518 | 15.52 | 4536 | 1.388 | 3.510 | -3.085 | 3.731 | 0.316 |
| 350T400-97 | 1.167 | 3.97 | 3.214 | 1.659 | 2.019 | 1.315 | 2.598 | 0.989 | 19.55 | 4213 | 2.419 | 0.895 | 26.80 | 6383 | 4.024 | 5.188 | -3.064 | 3.724 | 0.323 |
| 350T400-118 | 1.167 | 3.97 | 3.214 | 1.659 | 2.019 | 1.315 | 2.598 | 0.989 | 19.55 | 4213 | 2.419 | 0.895 | 26.80 | 6383 | 4.024 | 5.188 | -3.064 | 3.724 | 0.323 |
| 362T125-18 | 0.115 | 0.39 | 0.237 | 1.435 | 0.017 | 0.38 | 0.189 | 0.065 | 1.29 | 169 | ---- | ---- | ---- | ----- | 0.014 | 0.042 | -0.665 | 1.627 | 0.833 |
| 362T125-27 | 0.173 | 0.59 | 0.358 | 1.438 | 0.025 | 0.378 | 0.301 | 0.135 | 2.66 | 569 | ---- | ---- | ---- | ----- | 0.046 | 0.062 | -0.661 | 1.627 | 0.835 |
| 362T125-30 | 0.191 | 0.65 | 0.395 | 1.438 | 0.027 | 0.378 | 0.339 | 0.152 | 3.01 | 762 | ---- | ---- | ---- | ----- | 0.062 | 0.068 | -0.659 | 1.626 | 0.836 |
| 362T125-33 | 0.212 | 0.72 | 0.438 | 1.438 | 0.030 | 0.377 | 0.384 | 0.174 | 3.44 | 1024 | ---- | ---- | ---- | ----- | 0.085 | 0.076 | -0.658 | 1.626 | 0.836 |
| 362T125-43 | 0.276 | 0.94 | 0.571 | 1.439 | 0.039 | 0.375 | 0.531 | 0.245 | 4.84 | 1739 | ---- | ---- | ---- | ----- | 0.187 | 0.098 | -0.654 | 1.625 | 0.838 |
| 362T125-54 | 0.346 | 1.18 | 0.723 | 1.445 | 0.048 | 0.373 | 0.705 | 0.332 | 6.57 | 2480 | 0.678 | 0.312 | 9.34 | 3372 | 0.369 | 0.123 | -0.648 | 1.627 | 0.841 |
| 362T125-68 | 0.436 | 1.48 | 0.921 | 1.454 | 0.060 | 0.370 | 0.921 | 0.453 | 8.95 | 3104 | 0.907 | 0.427 | 12.78 | 4703 | 0.738 | 0.156 | -0.641 | 1.631 | 0.846 |
| 362T125-97 | 0.621 | 2.11 | 1.343 | 1.471 | 0.082 | 0.363 | 1.343 | 0.675 | 15.24 | 4370 | 1.343 | 0.675 | 20.20 | 6622 | 2.14 | 0.226 | -0.626 | 1.639 | 0.854 |
| 362T125-118 | 0.621 | 2.11 | 1.343 | 1.471 | 0.082 | 0.363 | 1.343 | 0.675 | 15.24 | 4370 | 1.343 | 0.675 | 20.20 | 6622 | 2.14 | 0.226 | -0.626 | 1.639 | 0.854 |
| 362T150-27 | 0.187 | 0.64 | 0.408 | 1.475 | 0.041 | 0.468 | 0.323 | 0.140 | 2.76 | 569 | ---- | ---- | ---- | ----- | 0.05 | 0.102 | -0.857 | 1.769 | 0.765 |
| 362T150-30 | 0.207 | 0.70 | 0.449 | 1.475 | 0.045 | 0.467 | 0.364 | 0.158 | 3.12 | 762 | ---- | ---- | ---- | ----- | 0.067 | 0.112 | -0.856 | 1.768 | 0.766 |
| 362T150-33 | 0.229 | 0.78 | 0.499 | 1.475 | 0.050 | 0.467 | 0.414 | 0.180 | 3.56 | 1024 | ---- | ---- | ---- | ----- | 0.091 | 0.124 | -0.854 | 1.767 | 0.766 |
| 362T150-43 | 0.298 | 1.02 | 0.650 | 1.476 | 0.064 | 0.465 | 0.574 | 0.255 | 5.04 | 1739 | ---- | ---- | ---- | ----- | 0.202 | 0.160 | -0.850 | 1.766 | 0.768 |
| 362T150-54 | 0.374 | 1.27 | 0.823 | 1.483 | 0.080 | 0.462 | 0.769 | 0.349 | 6.89 | 2480 | 0.735 | 0.325 | 9.74 | 3372 | 0.4 | 0.202 | -0.844 | 1.768 | 0.772 |
| 362T150-68 | 0.471 | 1.60 | 1.050 | 1.492 | 0.099 | 0.459 | 1.034 | 0.480 | 9.49 | 3104 | 0.993 | 0.449 | 13.43 | 4703 | 0.799 | 0.257 | -0.836 | 1.771 | 0.777 |
| 362T150-97 | 0.672 | 2.29 | 1.534 | 1.512 | 0.138 | 0.453 | 1.534 | 0.771 | 15.23 | 4370 | 1.534 | 0.733 | 21.94 | 6622 | 2.315 | 0.374 | -0.820 | 1.778 | 0.787 |
| 362T150-118 | 0.672 | 2.29 | 1.534 | 1.512 | 0.138 | 0.453 | 1.534 | 0.771 | 15.23 | 4370 | 1.534 | 0.733 | 21.94 | 6622 | 2.315 | 0.374 | -0.820 | 1.778 | 0.787 |
| 362T200-33 | 0.264 | 0.90 | 0.619 | 1.532 | 0.110 | 0.645 | 0.464 | 0.190 | 3.76 | 1024 | ---- | ---- | ---- | ----- | 0.105 | 0.269 | -1.270 | 2.092 | 0.631 |
| 362T200-43 | 0.343 | 1.17 | 0.808 | 1.534 | 0.142 | 0.643 | 0.649 | 0.270 | 5.34 | 1739 | ---- | ---- | ---- | ----- | 0.233 | 0.350 | -1.265 | 2.090 | 0.633 |
| 362T200-54 | 0.431 | 1.47 | 1.024 | 1.541 | 0.177 | 0.640 | 0.879 | 0.372 | 7.35 | 2480 | 0.832 | 0.345 | 10.34 | 3372 | 0.46 | 0.442 | -1.259 | 2.091 | 0.637 |
| 362T200-68 | 0.543 | 1.85 | 1.307 | 1.552 | 0.221 | 0.638 | 1.199 | 0.519 | 10.26 | 3104 | 1.138 | 0.480 | 14.37 | 4703 | 0.919 | 0.564 | -1.250 | 2.093 | 0.643 |
| 362T200-97 | 0.773 | 2.63 | 1.917 | 1.575 | 0.308 | 0.631 | 1.915 | 0.867 | 17.14 | 4370 | 1.839 | 0.803 | 24.06 | 6622 | 2.666 | 0.825 | -1.232 | 2.097 | 0.655 |
| 362T200-118 | 0.773 | 2.63 | 1.917 | 1.575 | 0.308 | 0.631 | 1.915 | 0.867 | 17.14 | 4370 | 1.839 | 0.803 | 24.06 | 6622 | 2.666 | 0.825 | -1.232 | 2.097 | 0.655 |
| 362T250-43 | 0.389 | 1.32 | 0.966 | 1.577 | 0.260 | 0.818 | 0.713 | 0.281 | 5.56 | 1739 | ---- | ---- | ---- | ----- | 0.263 | 0.641 | -1.702 | 2.460 | 0.521 |
| 362T250-54 | 0.487 | 1.66 | 1.224 | 1.585 | 0.324 | 0.816 | 0.971 | 0.389 | 7.69 | 2480 | 0.914 | 0.360 | 10.77 | 3372 | 0.521 | 0.812 | -1.695 | 2.460 | 0.525 |
| 362T250-68 | 0.614 | 2.09 | 1.565 | 1.597 | 0.406 | 0.813 | 1.337 | 0.546 | 10.79 | 3104 | 1.259 | 0.502 | 15.04 | 4703 | 1.04 | 1.038 | -1.686 | 2.460 | 0.530 |
| 362T250-97 | 0.875 | 2.98 | 2.300 | 1.621 | 0.570 | 0.807 | 2.180 | 0.928 | 18.34 | 4370 | 2.069 | 0.851 | 25.49 | 6622 | 3.016 | 1.524 | -1.667 | 2.461 | 0.541 |
| 362T250-118 | 0.875 | 2.98 | 2.300 | 1.621 | 0.570 | 0.807 | 2.180 | 0.928 | 18.34 | 4370 | 2.069 | 0.851 | 25.49 | 6622 | 3.016 | 1.524 | -1.667 | 2.461 | 0.541 |
| 362T300-54 | 0.544 | 1.85 | 1.425 | 1.618 | 0.531 | 0.988 | 1.051 | 0.402 | 7.94 | 2480 | 0.985 | 0.371 | 11.11 | 3372 | 0.581 | 1.337 | -2.146 | 2.863 | 0.439 |
| 362T300-68 | 0.685 | 2.33 | 1.823 | 1.631 | 0.665 | 0.985 | 1.456 | 0.566 | 11.19 | 3104 | 1.364 | 0.519 | 15.55 | 4703 | 1.161 | 1.711 | -2.136 | 2.862 | 0.443 |
| 362T300-97 | 0.977 | 3.32 | 2.682 | 1.657 | 0.937 | 0.979 | 2.409 | 0.972 | 19.21 | 4370 | 2.268 | 0.887 | 26.54 | 6622 | 3.367 | 2.518 | -2.116 | 2.860 | 0.453 |
| 362T300-118 | 0.977 | 3.32 | 2.682 | 1.657 | 0.937 | 0.979 | 2.409 | 0.972 | 19.21 | 4370 | 2.268 | 0.887 | 26.54 | 6622 | 3.367 | 2.518 | -2.116 | 2.860 | 0.453 |
| 362T400-68 | 0.828 | 2.82 | 2.339 | 1.681 | 1.444 | 1.321 | 1.654 | 0.595 | 11.75 | 3104 | 1.537 | 0.544 | 16.28 | 4703 | 1.403 | 3.785 | -3.063 | 3.735 | 0.328 |
| 362T400-97 | 1.180 | 4.02 | 3.447 | 1.709 | 2.042 | 1.316 | 2.790 | 1.033 | 20.41 | 4370 | 2.599 | 0.936 | 28.02 | 6622 | 4.068 | 5.585 | -3.041 | 3.729 | 0.335 |
| 362T400-118 | 1.180 | 4.02 | 3.447 | 1.709 | 2.042 | 1.316 | 2.790 | 1.033 | 20.41 | 4370 | 2.599 | 0.936 | 28.02 | 6622 | 4.068 | 5.585 | -3.041 | 3.729 | 0.335 |
| 400T125-18[3] | 0.122 | 0.41 | 0.297 | 1.560 | 0.017 | 0.374 | 0.241 | 0.072 | 1.42 | 153 | ---- | ---- | ---- | ----- | 0.014 | 0.052 | -0.637 | 1.726 | 0.864 |
| 400T125-27 | 0.184 | 0.63 | 0.449 | 1.562 | 0.025 | 0.372 | 0.380 | 0.156 | 3.08 | 515 | ---- | ---- | ---- | ----- | 0.049 | 0.078 | -0.633 | 1.726 | 0.866 |
| 400T125-30 | 0.203 | 0.69 | 0.495 | 1.562 | 0.028 | 0.371 | 0.427 | 0.176 | 3.49 | 689 | ---- | ---- | ---- | ----- | 0.066 | 0.085 | -0.632 | 1.726 | 0.866 |
| 400T125-33 | 0.225 | 0.76 | 0.549 | 1.563 | 0.031 | 0.371 | 0.484 | 0.201 | 3.97 | 940 | ---- | ---- | ---- | ----- | 0.09 | 0.095 | -0.630 | 1.725 | 0.867 |
| 400T125-43 | 0.293 | 1.00 | 0.716 | 1.563 | 0.040 | 0.369 | 0.666 | 0.282 | 5.57 | 1739 | ---- | ---- | ---- | ----- | 0.198 | 0.122 | -0.626 | 1.724 | 0.868 |
| 400T125-54 | 0.367 | 1.25 | 0.904 | 1.569 | 0.049 | 0.366 | 0.882 | 0.381 | 7.53 | 2739 | 0.849 | 0.359 | 10.74 | 3372 | 0.392 | 0.154 | -0.621 | 1.727 | 0.871 |
| 400T125-68 | 0.462 | 1.57 | 1.150 | 1.577 | 0.061 | 0.363 | 1.150 | 0.517 | 10.22 | 3435 | 1.134 | 0.488 | 14.62 | 5205 | 0.783 | 0.194 | -0.614 | 1.731 | 0.874 |
| 400T125-97 | 0.659 | 2.24 | 1.673 | 1.594 | 0.084 | 0.357 | 1.673 | 0.768 | 17.35 | 4842 | 1.673 | 0.768 | 23.00 | 7337 | 2.271 | 0.280 | -0.600 | 1.740 | 0.881 |
| 400T125-118 | 0.659 | 2.24 | 1.673 | 1.594 | 0.084 | 0.357 | 1.673 | 0.768 | 17.35 | 4842 | 1.673 | 0.768 | 23.00 | 7337 | 2.271 | 0.280 | -0.600 | 1.740 | 0.881 |
| 400T150-27 | 0.198 | 0.67 | 0.509 | 1.602 | 0.042 | 0.461 | 0.409 | 0.154 | 3.04 | 515 | ---- | ---- | ---- | ----- | 0.053 | 0.127 | -0.824 | 1.860 | 0.804 |
| 400T150-30 | 0.218 | 0.74 | 0.561 | 1.603 | 0.046 | 0.461 | 0.458 | 0.183 | 3.61 | 689 | ---- | ---- | ---- | ----- | 0.071 | 0.140 | -0.823 | 1.859 | 0.804 |
| 400T150-33 | 0.242 | 0.82 | 0.622 | 1.603 | 0.051 | 0.460 | 0.519 | 0.208 | 4.12 | 940 | ---- | ---- | ---- | ----- | 0.097 | 0.155 | -0.821 | 1.859 | 0.805 |
| 400T150-43 | 0.315 | 1.07 | 0.811 | 1.604 | 0.066 | 0.458 | 0.719 | 0.293 | 5.80 | 1739 | ---- | ---- | ---- | ----- | 0.214 | 0.200 | -0.817 | 1.857 | 0.807 |
| 400T150-54 | 0.396 | 1.35 | 1.025 | 1.610 | 0.082 | 0.456 | 0.960 | 0.399 | 7.89 | 2739 | 0.918 | 0.374 | 11.19 | 3372 | 0.422 | 0.252 | -0.811 | 1.860 | 0.810 |
| 400T150-68 | 0.498 | 1.69 | 1.306 | 1.619 | 0.102 | 0.453 | 1.286 | 0.548 | 10.82 | 3435 | 1.237 | 0.513 | 15.35 | 5205 | 0.844 | 0.32 | -0.804 | 1.864 | 0.814 |
| 400T150-97 | 0.710 | 2.41 | 1.903 | 1.638 | 0.141 | 0.447 | 1.903 | 0.874 | 17.27 | 4842 | 1.903 | 0.832 | 24.92 | 7337 | 2.447 | 0.463 | -0.788 | 1.872 | 0.823 |
| 400T150-118 | 0.710 | 2.41 | 1.903 | 1.638 | 0.141 | 0.447 | 1.903 | 0.874 | 17.27 | 4842 | 1.903 | 0.832 | 24.92 | 7337 | 2.447 | 0.463 | -0.788 | 1.872 | 0.823 |
| 400T200-33 | 0.277 | 0.94 | 0.768 | 1.666 | 0.113 | 0.639 | 0.581 | 0.220 | 4.34 | 940 | ---- | ---- | ---- | ----- | 0.11 | 0.336 | -1.229 | 2.166 | 0.678 |
| 400T200-43 | 0.360 | 1.23 | 1.002 | 1.668 | 0.146 | 0.637 | 0.811 | 0.311 | 6.14 | 1739 | ---- | ---- | ---- | ----- | 0.244 | 0.436 | -1.224 | 2.164 | 0.680 |
| 400T200-54 | 0.452 | 1.54 | 1.268 | 1.675 | 0.182 | 0.635 | 1.093 | 0.426 | 8.42 | 2739 | 1.037 | 0.397 | 11.88 | 3372 | 0.483 | 0.551 | -1.217 | 2.165 | 0.684 |
| 400T200-68 | 0.569 | 1.94 | 1.617 | 1.685 | 0.227 | 0.632 | 1.485 | 0.591 | 11.68 | 3435 | 1.412 | 0.549 | 16.42 | 5205 | 0.965 | 0.702 | -1.209 | 2.168 | 0.689 |
| 400T200-97 | 0.811 | 2.76 | 2.363 | 1.707 | 0.317 | 0.625 | 2.360 | 0.981 | 19.38 | 4842 | 2.268 | 0.911 | 27.28 | 7337 | 2.797 | 1.022 | -1.192 | 2.173 | 0.699 |
| 400T200-118 | 0.811 | 2.76 | 2.363 | 1.707 | 0.317 | 0.625 | 2.360 | 0.981 | 19.38 | 4842 | 2.268 | 0.911 | 27.28 | 7337 | 2.797 | 1.022 | -1.192 | 2.173 | 0.699 |
| 400T250-43 | 0.405 | 1.38 | 1.193 | 1.715 | 0.268 | 0.813 | 0.888 | 0.324 | 6.40 | 1739 | ---- | ---- | ---- | ----- | 0.275 | 0.799 | -1.653 | 2.517 | 0.569 |
| 400T250-54 | 0.509 | 1.73 | 1.511 | 1.723 | 0.335 | 0.811 | 1.205 | 0.445 | 8.80 | 2739 | 1.137 | 0.413 | 12.38 | 3372 | 0.543 | 1.011 | -1.646 | 2.517 | 0.572 |
| 400T250-68 | 0.641 | 2.18 | 1.928 | 1.735 | 0.418 | 0.808 | 1.652 | 0.622 | 12.28 | 3435 | 1.559 | 0.574 | 17.19 | 5205 | 1.086 | 1.289 | -1.637 | 2.518 | 0.578 |
| 400T250-97 | 0.913 | 3.11 | 2.823 | 1.758 | 0.587 | 0.802 | 2.679 | 1.048 | 20.72 | 4842 | 2.546 | 0.965 | 28.89 | 7337 | 3.148 | 1.886 | -1.618 | 2.521 | 0.588 |
| 400T250-118 | 0.913 | 3.11 | 2.823 | 1.758 | 0.587 | 0.802 | 2.679 | 1.048 | 20.72 | 4842 | 2.546 | 0.965 | 28.89 | 7337 | 3.148 | 1.886 | -1.618 | 2.521 | 0.588 |
| 400T300-54 | 0.565 | 1.92 | 1.753 | 1.761 | 0.548 | 0.985 | 1.302 | 0.460 | 9.09 | 2739 | 1.224 | 0.426 | 12.77 | 3372 | 0.604 | 1.662 | -2.090 | 2.905 | 0.482 |
| 400T300-68 | 0.712 | 2.42 | 2.239 | 1.774 | 0.686 | 0.982 | 1.797 | 0.645 | 12.74 | 3435 | 1.687 | 0.594 | 17.78 | 5205 | 1.206 | 2.122 | -2.081 | 2.905 | 0.487 |
| 400T300-97 | 1.015 | 3.45 | 3.284 | 1.799 | 0.967 | 0.976 | 2.953 | 1.098 | 21.70 | 4842 | 2.786 | 1.005 | 30.09 | 7337 | 3.499 | 3.111 | -2.061 | 2.905 | 0.496 |
| 400T300-118 | 1.015 | 3.45 | 3.284 | 1.799 | 0.967 | 0.976 | 2.953 | 1.098 | 21.70 | 4842 | 2.786 | 1.005 | 30.09 | 7337 | 3.499 | 3.111 | -2.061 | 2.905 | 0.496 |
| 400T400-68 | 0.854 | 2.91 | 2.862 | 1.830 | 1.491 | 1.321 | 2.038 | 0.678 | 13.39 | 3435 | 1.900 | 0.622 | 18.63 | 5205 | 1.448 | 4.68 | -2.998 | 3.752 | 0.362 |
| 400T400-97 | 1.218 | 4.15 | 4.204 | 1.858 | 2.109 | 1.316 | 3.413 | 1.167 | 23.06 | 4842 | 3.186 | 1.062 | 31.79 | 7337 | 4.2 | 6.88 | -2.977 | 3.747 | 0.369 |
| 400T400-118 | 1.218 | 4.15 | 4.204 | 1.858 | 2.109 | 1.316 | 3.413 | 1.167 | 23.06 | 4842 | 3.186 | 1.062 | 31.79 | 7337 | 4.2 | 6.88 | -2.977 | 3.747 | 0.369 |
| 550T125-27 | 0.226 | 0.77 | 0.948 | 2.046 | 0.027 | 0.348 | 0.786 | 0.192 | 3.79 | 372 | ---- | ---- | ---- | ----- | 0.06 | 0.160 | -0.543 | 2.145 | 0.936 |
| 550T125-30 | 0.250 | 0.85 | 1.045 | 2.046 | 0.030 | 0.347 | 0.897 | 0.226 | 4.47 | 499 | ---- | ---- | ---- | ----- | 0.081 | 0.176 | -0.542 | 2.145 | 0.936 |
| 550T125-33 | 0.277 | 0.94 | 1.159 | 2.046 | 0.033 | 0.346 | 1.029 | 0.270 | 5.33 | 680 | ---- | ---- | ---- | ----- | 0.11 | 0.195 | -0.541 | 2.145 | 0.936 |
| 550T125-43 | 0.360 | 1.23 | 1.510 | 2.047 | 0.043 | 0.344 | 1.428 | 0.416 | 8.23 | 1504 | ---- | ---- | ---- | ----- | 0.244 | 0.252 | -0.537 | 2.144 | 0.937 |
| 550T125-54 | 0.452 | 1.54 | 1.903 | 2.052 | 0.053 | 0.342 | 1.862 | 0.597 | 11.80 | 2739 | 1.811 | 0.535 | 16.01 | 2980 | 0.483 | 0.315 | -0.532 | 2.147 | 0.939 |
| 550T125-68 | 0.569 | 1.94 | 2.412 | 2.058 | 0.066 | 0.339 | 2.412 | 0.807 | 15.95 | 4347 | 2.379 | 0.769 | 23.02 | 5350 | 0.965 | 0.397 | -0.526 | 2.152 | 0.940 |

Table 4 continued on next page.

**TABLE 4–CHANNEL (TRACK) SECTION PROPERTIES (Continued)**

| Section | Gross Properties[1] | | | | | | 33 ksi Effective Properties[2] | | | | 50 ksi Effective Properties[2] | | | | Torsional Properties | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Area | Weight | Ixx ($in^4$) | Rx (in) | Iyy ($in^4$) | Ry (in) | Ixx ($in^4$) | Sxx ($in^3$) | Ma (in-k) | Va (lb) | Ixx ($in^4$) | Sxx ($in^3$) | Ma (in-k) | Va (lb) | Jx1000 ($in^4$) | Cw ($in^6$) | Xo (in) | Ro (in) | ß |
| 550T125-97 | 0.811 | 2.76 | 3.483 | 2.072 | 0.090 | 0.333 | 3.483 | 1.190 | 26.87 | 6730 | 3.483 | 1.190 | 35.62 | 10197 | 2.797 | 0.564 | -0.514 | 2.161 | 0.943 |
| 550T125-118 | 0.811 | 2.76 | 3.483 | 2.072 | 0.090 | 0.333 | 3.483 | 1.190 | 26.87 | 6730 | 3.483 | 1.190 | 35.62 | 10197 | 2.797 | 0.564 | -0.514 | 2.161 | 0.943 |
| 550T150-27 | 0.241 | 0.82 | 1.059 | 2.098 | 0.046 | 0.436 | 0.893 | 0.207 | 4.10 | 372 | ---- | ---- | ---- | ----- | 0.064 | 0.263 | -0.716 | 2.259 | 0.900 |
| 550T150-30 | 0.265 | 0.90 | 1.168 | 2.098 | 0.050 | 0.435 | 0.995 | 0.251 | 4.96 | 499 | ---- | ---- | ---- | ----- | 0.086 | 0.289 | -0.715 | 2.259 | 0.900 |
| 550T150-33 | 0.294 | 1.00 | 1.295 | 2.099 | 0.055 | 0.434 | 1.115 | 0.310 | 6.12 | 680 | ---- | ---- | ---- | ----- | 0.117 | 0.320 | -0.714 | 2.259 | 0.900 |
| 550T150-43 | 0.383 | 1.30 | 1.688 | 2.099 | 0.072 | 0.432 | 1.516 | 0.468 | 9.25 | 1504 | ---- | ---- | ---- | ----- | 0.26 | 0.414 | -0.709 | 2.258 | 0.901 |
| 550T150-54 | 0.480 | 1.63 | 2.128 | 2.105 | 0.089 | 0.430 | 2.005 | 0.628 | 12.41 | 2739 | 1.928 | 0.595 | 17.81 | 2980 | 0.513 | 0.519 | -0.704 | 2.261 | 0.903 |
| 550T150-68 | 0.605 | 2.06 | 2.699 | 2.112 | 0.110 | 0.427 | 2.660 | 0.850 | 16.80 | 4347 | 2.569 | 0.804 | 24.07 | 5350 | 1.025 | 0.655 | -0.698 | 2.265 | 0.905 |
| 550T150-97 | 0.862 | 2.93 | 3.904 | 2.128 | 0.153 | 0.421 | 3.904 | 1.333 | 26.35 | 6730 | 3.904 | 1.278 | 38.27 | 10197 | 2.973 | 0.937 | -0.684 | 2.275 | 0.909 |
| 550T150-118 | 0.862 | 2.93 | 3.904 | 2.128 | 0.153 | 0.421 | 3.904 | 1.333 | 26.35 | 6730 | 3.904 | 1.278 | 38.27 | 10197 | 2.973 | 0.937 | -0.684 | 2.275 | 0.909 |
| 550T200-33 | 0.329 | 1.12 | 1.567 | 2.184 | 0.123 | 0.613 | 1.246 | 0.307 | 6.060 | 680 | ---- | ---- | ---- | ----- | 0.131 | 0.694 | -1.088 | 2.516 | 0.813 |
| 550T200-43 | 0.428 | 1.46 | 2.043 | 2.185 | 0.160 | 0.611 | 1.690 | 0.495 | 9.79 | 1504 | ---- | ---- | ---- | ----- | 0.290 | 0.900 | -1.083 | 2.514 | 0.814 |
| 550T200-54 | 0.537 | 1.83 | 2.578 | 2.191 | 0.199 | 0.609 | 2.253 | 0.669 | 13.21 | 2739 | 2.153 | 0.630 | 18.86 | 2980 | 0.573 | 1.133 | -1.077 | 2.517 | 0.817 |
| 550T200-68 | 0.676 | 2.3 | 3.274 | 2.200 | 0.248 | 0.606 | 3.027 | 0.914 | 18.06 | 4347 | 2.894 | 0.857 | 25.67 | 5350 | 1.146 | 1.434 | -1.070 | 2.521 | 0.820 |
| 550T200-97 | 0.964 | 3.28 | 4.746 | 2.219 | 0.347 | 0.600 | 4.735 | 1.483 | 29.30 | 6730 | 4.566 | 1.391 | 41.64 | 10197 | 3.323 | 2.067 | -1.055 | 2.529 | 0.826 |
| 550T200-118 | 1.177 | 4.00 | 5.863 | 2.232 | 0.416 | 0.594 | 5.863 | 1.936 | 38.25 | 8167 | 5.863 | 1.826 | 54.66 | 12374 | 6.050 | 2.543 | -1.043 | 2.535 | 0.831 |
| 550T250-43 | 0.473 | 1.61 | 2.399 | 2.252 | 0.295 | 0.79 | 1.841 | 0.516 | 10.20 | 1504 | ---- | ---- | ---- | ----- | 0.321 | 1.643 | -1.484 | 2.810 | 0.721 |
| 550T250-54 | 0.594 | 2.02 | 3.029 | 2.259 | 0.368 | 0.788 | 2.466 | 0.699 | 13.81 | 2739 | 2.346 | 0.657 | 19.66 | 2980 | 0.634 | 2.070 | -1.478 | 2.812 | 0.724 |
| 550T250-68 | 0.748 | 2.54 | 3.849 | 2.269 | 0.460 | 0.785 | 3.338 | 0.960 | 18.97 | 4347 | 3.172 | 0.897 | 26.86 | 5350 | 1.267 | 2.627 | -1.470 | 2.815 | 0.727 |
| 550T250-97 | 1.066 | 3.63 | 5.588 | 2.290 | 0.646 | 0.779 | 5.314 | 1.580 | 31.23 | 6730 | 5.073 | 1.470 | 44.01 | 10197 | 3.674 | 3.801 | -1.453 | 2.822 | 0.735 |
| 550T250-118 | 1.301 | 4.43 | 6.912 | 2.305 | 0.779 | 0.774 | 6.869 | 2.093 | 41.36 | 8167 | 6.601 | 1.949 | 58.36 | 12374 | 6.688 | 4.691 | -1.441 | 2.826 | 0.740 |
| 550T300-54 | 0.65 | 2.21 | 3.479 | 2.313 | 0.606 | 0.965 | 2.654 | 0.723 | 14.28 | 2739 | 2.526 | 0.663 | 19.84 | 2980 | 0.694 | 3.390 | -1.898 | 3.144 | 0.636 |
| 550T300-68 | 0.819 | 2.79 | 4.424 | 2.324 | 0.758 | 0.962 | 3.610 | 0.996 | 19.68 | 4347 | 3.417 | 0.929 | 27.80 | 5350 | 1.388 | 4.307 | -1.889 | 3.146 | 0.639 |
| 550T300-97 | 1.167 | 3.97 | 6.430 | 2.347 | 1.068 | 0.956 | 5.816 | 1.654 | 32.68 | 6730 | 5.516 | 1.531 | 45.83 | 10197 | 4.024 | 6.248 | -1.871 | 3.150 | 0.647 |
| 550T300-118 | 1.425 | 4.85 | 7.960 | 2.364 | 1.291 | 0.952 | 7.592 | 2.208 | 43.64 | 8167 | 7.232 | 2.042 | 61.13 | 12374 | 7.327 | 7.726 | -1.858 | 3.153 | 0.653 |
| 550T400-68 | 0.961 | 3.27 | 5.573 | 2.408 | 1.655 | 1.312 | 4.073 | 1.049 | 20.74 | 4347 | 3.834 | 0.976 | 29.21 | 5350 | 1.629 | 9.418 | -2.766 | 3.895 | 0.496 |
| 550T400-97 | 1.371 | 4.66 | 8.113 | 2.433 | 2.339 | 1.306 | 6.666 | 1.759 | 34.76 | 6730 | 6.265 | 1.619 | 48.49 | 10197 | 4.726 | 13.707 | -2.746 | 3.895 | 0.503 |
| 550T400-118 | 1.673 | 5.69 | 10.056 | 2.452 | 2.837 | 1.302 | 8.809 | 2.371 | 46.84 | 8167 | 8.298 | 2.174 | 65.10 | 12374 | 8.604 | 16.987 | -2.732 | 3.895 | 0.508 |
| 600T125-27[3] | 0.241 | 0.82 | 1.168 | 2.204 | 0.028 | 0.340 | 0.958 | 0.210 | 4.16 | 341 | ---- | ---- | ---- | ----- | 0.064 | 0.196 | -0.519 | 2.290 | 0.949 |
| 600T125-30 | 0.265 | 0.90 | 1.288 | 2.204 | 0.031 | 0.340 | 1.095 | 0.249 | 4.92 | 456 | ---- | ---- | ---- | ----- | 0.086 | 0.215 | -0.518 | 2.289 | 0.949 |
| 600T125-33 | 0.294 | 1.00 | 1.428 | 2.204 | 0.034 | 0.339 | 1.258 | 0.297 | 5.87 | 622 | ---- | ---- | ---- | ----- | 0.117 | 0.238 | -0.516 | 2.289 | 0.949 |
| 600T125-43 | 0.383 | 1.30 | 1.861 | 2.205 | 0.044 | 0.337 | 1.768 | 0.461 | 9.11 | 1377 | ---- | ---- | ---- | ----- | 0.260 | 0.307 | -0.513 | 2.288 | 0.950 |
| 600T125-54 | 0.48 | 1.63 | 2.344 | 2.209 | 0.054 | 0.335 | 2.299 | 0.666 | 13.15 | 2728 | 2.241 | 0.592 | 17.73 | 2728 | 0.513 | 0.384 | -0.508 | 2.291 | 0.951 |
| 600T125-68 | 0.605 | 2.06 | 2.969 | 2.215 | 0.067 | 0.332 | 2.969 | 0.916 | 18.09 | 4347 | 2.934 | 0.858 | 25.69 | 5350 | 1.025 | 0.483 | -0.503 | 2.296 | 0.952 |
| 600T125-97 | 0.862 | 2.93 | 4.281 | 2.228 | 0.092 | 0.326 | 4.281 | 1.347 | 30.43 | 7359 | 4.281 | 1.347 | 40.33 | 10885 | 2.973 | 0.685 | -0.491 | 2.305 | 0.955 |
| 600T125-118 | 1.052 | 3.58 | 5.268 | 2.237 | 0.109 | 0.321 | 5.268 | 1.637 | 37.94 | 8936 | 5.268 | 1.637 | 56.32 | 13539 | 5.411 | 0.832 | -0.483 | 2.311 | 0.956 |
| 600T150-27[3] | 0.255 | 0.87 | 1.300 | 2.260 | 0.047 | 0.427 | 1.011 | 0.214 | 4.23 | 341 | ---- | ---- | ---- | ----- | 0.068 | 0.320 | -0.686 | 2.400 | 0.918 |
| 600T150-30 | 0.281 | 0.96 | 1.434 | 2.260 | 0.051 | 0.427 | 1.159 | 0.253 | 5.01 | 456 | ---- | ---- | ---- | ----- | 0.091 | 0.352 | -0.685 | 2.400 | 0.918 |
| 600T150-33 | 0.311 | 1.06 | 1.590 | 2.260 | 0.057 | 0.426 | 1.334 | 0.303 | 5.99 | 622 | ---- | ---- | ---- | ----- | 0.124 | 0.390 | -0.684 | 2.399 | 0.919 |
| 600T150-43 | 0.405 | 1.38 | 2.072 | 2.261 | 0.073 | 0.424 | 1.890 | 0.474 | 9.36 | 1377 | ---- | ---- | ---- | ----- | 0.275 | 0.504 | -0.680 | 2.398 | 0.920 |
| 600T150-54 | 0.509 | 1.73 | 2.611 | 2.266 | 0.091 | 0.422 | 2.473 | 0.689 | 13.62 | 2728 | 2.400 | 0.609 | 18.24 | 2728 | 0.543 | 0.632 | -0.675 | 2.401 | 0.921 |
| 600T150-68 | 0.641 | 2.18 | 3.309 | 2.273 | 0.113 | 0.419 | 3.262 | 0.963 | 19.03 | 4347 | 3.162 | 0.891 | 26.68 | 5350 | 1.086 | 0.797 | -0.669 | 2.406 | 0.923 |
| 600T150-97 | 0.913 | 3.11 | 4.778 | 2.288 | 0.156 | 0.413 | 4.778 | 1.504 | 29.71 | 7359 | 4.778 | 1.444 | 43.23 | 10885 | 3.148 | 1.138 | -0.656 | 2.415 | 0.926 |
| 600T150-118 | 1.114 | 3.79 | 5.886 | 2.298 | 0.186 | 0.409 | 5.886 | 1.829 | 41.41 | 8936 | 5.886 | 1.829 | 61.64 | 13539 | 5.730 | 1.389 | -0.647 | 2.422 | 0.929 |
| 600T200-33 | 0.346 | 1.18 | 1.913 | 2.352 | 0.126 | 0.604 | 1.542 | 0.333 | 6.59 | 622 | ---- | ---- | ---- | ----- | 0.138 | 0.847 | -1.048 | 2.645 | 0.843 |
| 600T200-43 | 0.451 | 1.53 | 2.494 | 2.353 | 0.163 | 0.602 | 2.076 | 0.565 | 11.16 | 1377 | ---- | ---- | ---- | ----- | 0.305 | 1.098 | -1.044 | 2.643 | 0.844 |
| 600T200-54 | 0.565 | 1.92 | 3.145 | 2.359 | 0.203 | 0.600 | 2.759 | 0.759 | 15.00 | 2728 | 2.641 | 0.717 | 21.48 | 2728 | 0.604 | 1.381 | -1.038 | 2.646 | 0.846 |
| 600T200-68 | 0.712 | 2.42 | 3.990 | 2.367 | 0.254 | 0.597 | 3.696 | 1.034 | 20.42 | 4347 | 3.540 | 0.973 | 29.12 | 5350 | 1.206 | 1.746 | -1.031 | 2.650 | 0.849 |
| 600T200-97 | 1.015 | 3.45 | 5.773 | 2.385 | 0.354 | 0.591 | 5.758 | 1.667 | 32.95 | 7359 | 5.558 | 1.568 | 46.94 | 10885 | 3.499 | 2.510 | -1.016 | 2.659 | 0.854 |
| 600T200-118 | 1.239 | 4.21 | 7.122 | 2.398 | 0.426 | 0.586 | 7.122 | 2.170 | 42.88 | 8936 | 7.122 | 2.051 | 61.42 | 13539 | 6.369 | 3.083 | -1.006 | 2.665 | 0.858 |
| 600T250-43 | 0.496 | 1.69 | 2.916 | 2.425 | 0.303 | 0.781 | 2.269 | 0.563 | 11.13 | 1377 | ---- | ---- | ---- | ----- | 0.336 | 2.004 | -1.436 | 2.925 | 0.759 |
| 600T250-54 | 0.622 | 2.12 | 3.678 | 2.432 | 0.377 | 0.779 | 3.014 | 0.793 | 15.68 | 2728 | 2.881 | 0.732 | 21.92 | 2728 | 0.664 | 2.523 | -1.430 | 2.927 | 0.761 |
| 600T250-68 | 0.783 | 2.67 | 4.670 | 2.442 | 0.472 | 0.776 | 4.065 | 1.085 | 21.45 | 4347 | 3.871 | 1.017 | 30.46 | 5350 | 1.327 | 3.198 | -1.422 | 2.930 | 0.764 |
| 600T250-97 | 1.116 | 3.80 | 6.767 | 2.462 | 0.662 | 0.770 | 6.441 | 1.775 | 35.08 | 7359 | 6.157 | 1.656 | 49.58 | 10885 | 3.849 | 4.616 | -1.406 | 2.938 | 0.771 |
| 600T250-118 | 1.363 | 4.64 | 8.359 | 2.477 | 0.798 | 0.765 | 8.306 | 2.343 | 46.30 | 8936 | 7.990 | 2.188 | 65.51 | 13539 | 7.008 | 5.686 | -1.394 | 2.943 | 0.776 |
| 600T300-54 | 0.679 | 2.31 | 4.212 | 2.492 | 0.622 | 0.957 | 3.239 | 0.821 | 16.22 | 2728 | 3.108 | 0.722 | 21.61 | 2728 | 0.725 | 4.129 | -1.842 | 3.243 | 0.677 |
| 600T300-68 | 0.854 | 2.91 | 5.350 | 2.502 | 0.778 | 0.954 | 4.389 | 1.126 | 22.25 | 4347 | 4.164 | 1.053 | 31.53 | 5350 | 1.448 | 5.239 | -1.834 | 3.246 | 0.681 |
| 600T300-97 | 1.218 | 4.15 | 7.762 | 2.524 | 1.096 | 0.948 | 7.034 | 1.857 | 36.69 | 7359 | 6.681 | 1.724 | 51.62 | 10885 | 4.200 | 7.582 | -1.816 | 3.251 | 0.688 |
| 600T300-118 | 1.487 | 5.06 | 9.595 | 2.540 | 1.325 | 0.944 | 9.157 | 2.471 | 48.82 | 8936 | 8.734 | 2.291 | 68.59 | 13539 | 7.646 | 9.359 | -1.803 | 3.255 | 0.693 |
| 600T400-68 | 0.997 | 3.39 | 6.711 | 2.594 | 1.702 | 1.306 | 4.943 | 1.187 | 23.45 | 4347 | 4.665 | 1.107 | 33.15 | 5350 | 1.690 | 11.435 | -2.697 | 3.964 | 0.537 |
| 600T400-97 | 1.422 | 4.84 | 9.751 | 2.619 | 2.405 | 1.301 | 8.042 | 1.975 | 39.03 | 7359 | 7.574 | 1.824 | 54.62 | 10885 | 4.901 | 16.604 | -2.678 | 3.965 | 0.544 |
| 600T400-118 | 1.735 | 5.91 | 12.068 | 2.637 | 2.916 | 1.296 | 10.593 | 2.651 | 52.39 | 8936 | 9.994 | 2.439 | 73.03 | 13539 | 8.924 | 20.542 | -2.664 | 3.966 | 0.549 |
| 725T125-27[3] | 0.276 | 0.94 | 1.855 | 2.593 | 0.029 | 0.323 | 1.471 | 0.258 | 5.09 | 281 | ---- | ---- | ---- | ----- | 0.074 | 0.301 | -0.467 | 2.654 | 0.969 |
| 725T125-30[3] | 0.304 | 1.03 | 2.045 | 2.593 | 0.032 | 0.323 | 1.688 | 0.306 | 6.04 | 377 | ---- | ---- | ---- | ----- | 0.099 | 0.330 | -0.466 | 2.654 | 0.969 |
| 725T125-33[3] | 0.337 | 1.15 | 2.268 | 2.593 | 0.035 | 0.322 | 1.946 | 0.365 | 7.22 | 514 | ---- | ---- | ---- | ----- | 0.135 | 0.365 | -0.465 | 2.654 | 0.969 |
| 725T125-43 | 0.439 | 1.49 | 2.955 | 2.593 | 0.045 | 0.320 | 2.763 | 0.573 | 11.32 | 1137 | ---- | ---- | ---- | ----- | 0.298 | 0.471 | -0.462 | 2.654 | 0.970 |
| 725T125-54 | 0.551 | 1.88 | 3.718 | 2.597 | 0.056 | 0.318 | 3.666 | 0.837 | 16.54 | 2252 | 3.510 | 0.737 | 22.06 | 2252 | 0.589 | 0.589 | -0.458 | 2.656 | 0.970 |
| 725T125-68 | 0.694 | 2.36 | 4.702 | 2.603 | 0.069 | 0.315 | 4.702 | 1.198 | 23.68 | 4347 | 4.667 | 1.081 | 32.37 | 4516 | 1.176 | 0.738 | -0.452 | 2.661 | 0.971 |
| 725T125-97 | 0.989 | 3.37 | 6.761 | 2.614 | 0.095 | 0.310 | 6.761 | 1.778 | 40.15 | 8843 | 6.761 | 1.778 | 53.23 | 10885 | 3.411 | 1.042 | -0.442 | 2.669 | 0.973 |
| 725T125-118 | 1.208 | 4.11 | 8.303 | 2.622 | 0.113 | 0.305 | 8.303 | 2.161 | 50.08 | 10857 | 8.303 | 2.161 | 74.33 | 16235 | 6.209 | 1.262 | -0.434 | 2.675 | 0.974 |
| 725T150-27[3] | 0.290 | 0.99 | 2.047 | 2.656 | 0.048 | 0.409 | 1.546 | 0.262 | 5.17 | 281 | ---- | ---- | ---- | ----- | 0.077 | 0.493 | -0.623 | 2.759 | 0.949 |
| 725T150-30[3] | 0.320 | 1.09 | 2.256 | 2.656 | 0.053 | 0.408 | 1.776 | 0.311 | 6.14 | 377 | ---- | ---- | ---- | ----- | 0.104 | 0.543 | -0.622 | 2.759 | 0.949 |
| 725T150-33[3] | 0.355 | 1.21 | 2.502 | 2.657 | 0.059 | 0.407 | 2.053 | 0.372 | 7.36 | 514 | ---- | ---- | ---- | ----- | 0.141 | 0.601 | -0.620 | 2.758 | 0.949 |
| 725T150-43 | 0.462 | 1.57 | 3.260 | 2.657 | 0.076 | 0.406 | 2.934 | 0.587 | 11.60 | 1137 | ---- | ---- | ---- | ----- | 0.313 | 0.777 | -0.617 | 2.758 | 0.950 |
| 725T150-54 | 0.579 | 1.97 | 4.104 | 2.661 | 0.094 | 0.403 | 3.923 | 0.864 | 17.07 | 2252 | 3.732 | 0.756 | 22.63 | 2252 | 0.619 | 0.972 | -0.612 | 2.761 | 0.951 |
| 725T150-68 | 0.730 | 2.48 | 5.194 | 2.668 | 0.117 | 0.401 | 5.129 | 1.251 | 24.71 | 4347 | 5.002 | 1.118 | 33.48 | 4516 | 1.237 | 1.222 | -0.607 | 2.765 | 0.952 |
| 725T150-97 | 1.040 | 3.54 | 7.477 | 2.681 | 0.162 | 0.395 | 7.477 | 1.966 | 38.85 | 8843 | 7.477 | 1.895 | 56.75 | 10885 | 3.586 | 1.735 | -0.595 | 2.774 | 0.954 |
| 725T150-118 | 1.270 | 4.32 | 9.190 | 2.690 | 0.193 | 0.390 | 9.190 | 2.392 | 54.14 | 10857 | 9.190 | 2.392 | 80.59 | 16235 | 6.529 | 2.112 | -0.586 | 2.781 | 0.956 |
| 725T200-33[3] | 0.389 | 1.32 | 2.971 | 2.763 | 0.132 | 0.583 | 2.465 | 0.400 | 7.91 | 514 | ---- | ---- | ---- | ----- | 0.155 | 1.307 | -0.962 | 2.983 | 0.896 |

Table 4 continued on next page.

**TABLE 4–CHANNEL (TRACK) SECTION PROPERTIES (Continued)**

| Section | Gross Properties[1] | | | | | | 33 ksi Effective Properties[2] | | | | 50 ksi Effective Properties[2] | | | | Torsional Properties | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Area | Weight | Ixx ($in^4$) | Rx (in) | Iyy ($in^4$) | Ry (in) | Ixx ($in^4$) | Sxx ($in^3$) | Ma (in-k) | Va (lb) | Ixx ($in^4$) | Sxx ($in^3$) | Ma (in-k) | Va (lb) | Jx1000 ($in^4$) | Cw ($in^6$) | Xo (in) | Ro (in) | ß |
| 725T200-43 | 0.507 | 1.73 | 3.872 | 2.764 | 0.171 | 0.581 | 3.307 | 0.678 | 13.39 | 1137 | ---- | ---- | ---- | ----- | 0.344 | 1.695 | -0.958 | 2.982 | 0.897 |
| 725T200-54 | 0.636 | 2.16 | 4.877 | 2.769 | 0.213 | 0.579 | 4.319 | 1.007 | 19.90 | 2252 | 4.188 | 0.881 | 26.37 | 2252 | 0.679 | 2.127 | -0.953 | 2.985 | 0.898 |
| 725T200-68 | 0.801 | 2.73 | 6.178 | 2.777 | 0.266 | 0.576 | 5.749 | 1.359 | 26.86 | 4347 | 5.526 | 1.287 | 38.54 | 4516 | 1.357 | 2.684 | -0.946 | 2.990 | 0.900 |
| 725T200-97 | 1.142 | 3.89 | 8.908 | 2.793 | 0.371 | 0.570 | 8.881 | 2.166 | 42.80 | 8843 | 8.593 | 2.048 | 61.33 | 10885 | 3.937 | 3.839 | -0.933 | 2.999 | 0.903 |
| 725T200-118 | 1.394 | 4.74 | 10.965 | 2.805 | 0.445 | 0.565 | 10.965 | 2.802 | 55.37 | 10857 | 10.965 | 2.662 | 79.69 | 16235 | 7.167 | 4.698 | -0.923 | 3.006 | 0.906 |
| 725T250-43 | 0.552 | 1.88 | 4.484 | 2.85 | 0.318 | 0.759 | 3.602 | 0.673 | 13.30 | 1137 | ---- | ---- | ---- | ----- | 0.374 | 3.092 | -1.330 | 3.235 | 0.831 |
| 725T250-54 | 0.693 | 2.36 | 5.650 | 2.856 | 0.397 | 0.757 | 4.693 | 1.052 | 20.78 | 2252 | 4.564 | 0.874 | 26.16 | 2252 | 0.740 | 3.887 | -1.324 | 3.238 | 0.833 |
| 725T250-68 | 0.872 | 2.97 | 7.161 | 2.865 | 0.496 | 0.754 | 6.285 | 1.426 | 28.17 | 4347 | 6.011 | 1.345 | 40.28 | 4516 | 1.478 | 4.914 | -1.317 | 3.242 | 0.835 |
| 725T250-97 | 1.244 | 4.23 | 10.34 | 2.884 | 0.696 | 0.748 | 9.863 | 2.300 | 45.45 | 8843 | 9.457 | 2.159 | 64.65 | 10885 | 4.287 | 7.061 | -1.302 | 3.251 | 0.840 |
| 725T250-118 | 1.518 | 5.17 | 12.74 | 2.897 | 0.839 | 0.744 | 12.655 | 3.014 | 59.56 | 10857 | 12.200 | 2.831 | 84.76 | 16235 | 7.806 | 8.667 | -1.291 | 3.257 | 0.843 |
| 725T300-54 | 0.749 | 2.55 | 6.424 | 2.928 | 0.657 | 0.936 | 5.034 | 1.075 | 21.25 | 2252 | 4.905 | 0.868 | 25.99 | 2252 | 0.800 | 6.354 | -1.718 | 3.521 | 0.762 |
| 725T300-68 | 0.944 | 3.21 | 8.145 | 2.938 | 0.822 | 0.933 | 6.761 | 1.478 | 29.21 | 4347 | 6.444 | 1.392 | 41.68 | 4516 | 1.599 | 8.044 | -1.710 | 3.525 | 0.765 |
| 725T300-97 | 1.345 | 4.58 | 11.772 | 2.958 | 1.157 | 0.927 | 10.717 | 2.403 | 47.49 | 8843 | 10.216 | 2.246 | 67.26 | 10885 | 4.638 | 11.589 | -1.693 | 3.532 | 0.77 |
| 725T300-118 | 1.642 | 5.59 | 14.515 | 2.973 | 1.398 | 0.923 | 13.873 | 3.173 | 62.70 | 10857 | 13.268 | 2.960 | 88.64 | 16235 | 8.445 | 14.256 | -1.681 | 3.538 | 0.774 |
| 725T400-68 | 1.086 | 3.70 | 10.112 | 3.051 | 1.805 | 1.289 | 7.582 | 1.559 | 30.81 | 4347 | 7.256 | 1.379 | 41.29 | 4516 | 1.841 | 17.505 | -2.542 | 4.175 | 0.629 |
| 725T400-97 | 1.549 | 5.27 | 14.635 | 3.074 | 2.550 | 1.283 | 12.177 | 2.556 | 50.51 | 8843 | 11.522 | 2.378 | 71.19 | 10885 | 5.339 | 25.302 | -2.524 | 4.180 | 0.635 |
| 725T400-118 | 1.891 | 6.43 | 18.064 | 3.091 | 3.092 | 1.279 | 15.935 | 3.402 | 67.22 | 10857 | 15.091 | 3.151 | 94.35 | 16235 | 9.722 | 31.200 | -2.511 | 4.183 | 0.640 |
| 800T125-30[3] | 0.328 | 1.11 | 2.611 | 2.824 | 0.032 | 0.314 | 2.113 | 0.339 | 6.71 | 341 | ---- | ---- | ---- | ----- | 0.106 | 0.413 | -0.44 | 2.875 | 0.977 |
| 800T125-33[3] | 0.363 | 1.24 | 2.895 | 2.824 | 0.036 | 0.313 | 2.441 | 0.407 | 8.03 | 465 | ---- | ---- | ---- | ----- | 0.145 | 0.456 | -0.439 | 2.875 | 0.977 |
| 800T125-43 | 0.473 | 1.61 | 3.773 | 2.824 | 0.046 | 0.311 | 3.484 | 0.640 | 12.65 | 1030 | ---- | ---- | ---- | ----- | 0.321 | 0.589 | -0.436 | 2.874 | 0.977 |
| 800T125-54 | 0.594 | 2.02 | 4.745 | 2.827 | 0.057 | 0.309 | 4.668 | 0.940 | 18.58 | 2039 | 4.426 | 0.824 | 24.66 | 2039 | 0.634 | 0.735 | -0.432 | 2.877 | 0.977 |
| 800T125-68 | 0.748 | 2.54 | 5.998 | 2.833 | 0.070 | 0.306 | 5.998 | 1.356 | 26.80 | 4087 | 5.956 | 1.216 | 36.39 | 4087 | 1.267 | 0.920 | -0.427 | 2.881 | 0.978 |
| 800T125-97 | 1.066 | 3.63 | 8.613 | 2.843 | 0.096 | 0.301 | 8.613 | 2.062 | 40.74 | 8843 | 8.613 | 2.062 | 61.72 | 10885 | 3.674 | 1.296 | -0.417 | 2.889 | 0.979 |
| 800T125-118 | 1.301 | 4.43 | 10.569 | 2.850 | 0.114 | 0.297 | 10.569 | 2.506 | 58.08 | 12009 | 10.569 | 2.506 | 86.21 | 16235 | 6.688 | 1.567 | -0.410 | 2.895 | 0.980 |
| 800T150-30[1] | 0.343 | 1.17 | 2.868 | 2.891 | 0.054 | 0.398 | 2.219 | 0.345 | 6.82 | 341 | ---- | ---- | ---- | ----- | 0.111 | 0.679 | -0.589 | 2.977 | 0.961 |
| 800T150-33[3] | 0.380 | 1.29 | 3.180 | 2.891 | 0.060 | 0.397 | 2.569 | 0.414 | 8.18 | 465 | ---- | ---- | ---- | ----- | 0.152 | 0.751 | -0.588 | 2.977 | 0.961 |
| 800T150-43 | 0.496 | 1.69 | 4.144 | 2.891 | 0.077 | 0.395 | 3.689 | 0.655 | 12.95 | 1030 | ---- | ---- | ---- | ----- | 0.336 | 0.972 | -0.584 | 2.976 | 0.961 |
| 800T150-54 | 0.622 | 2.12 | 5.214 | 2.896 | 0.096 | 0.393 | 4.976 | 0.969 | 19.15 | 2039 | 4.692 | 0.844 | 25.27 | 2039 | 0.664 | 1.215 | -0.58 | 2.979 | 0.962 |
| 800T150-68 | 0.783 | 2.67 | 6.594 | 2.902 | 0.119 | 0.390 | 6.527 | 1.412 | 27.91 | 4087 | 6.361 | 1.255 | 37.58 | 4087 | 1.327 | 1.526 | -0.575 | 2.984 | 0.963 |
| 800T150-97 | 1.116 | 3.80 | 9.479 | 2.914 | 0.165 | 0.384 | 9.479 | 2.269 | 44.83 | 8843 | 9.479 | 2.192 | 65.62 | 10885 | 3.849 | 2.162 | -0.564 | 2.993 | 0.965 |
| 800T150-118 | 1.363 | 4.64 | 11.641 | 2.923 | 0.197 | 0.380 | 11.641 | 2.760 | 62.48 | 12009 | 11.641 | 2.760 | 93.00 | 16235 | 7.008 | 2.627 | -0.555 | 2.999 | 0.966 |
| 800T200-33[3] | 0.415 | 1.41 | 3.749 | 3.005 | 0.135 | 0.571 | 2.788 | 0.424 | 8.37 | 465 | ---- | ---- | ---- | ----- | 0.166 | 1.638 | -0.917 | 3.194 | 0.918 |
| 800T200-43 | 0.541 | 1.84 | 4.887 | 3.006 | 0.175 | 0.569 | 4.043 | 0.676 | 13.35 | 1030 | ---- | ---- | ---- | ----- | 0.367 | 2.124 | -0.913 | 3.193 | 0.918 |
| 800T200-54 | 0.679 | 2.31 | 6.152 | 3.011 | 0.218 | 0.567 | 5.505 | 1.009 | 19.93 | 2039 | 5.149 | 0.871 | 26.09 | 2039 | 0.725 | 2.664 | -0.908 | 3.196 | 0.919 |
| 800T200-68 | 0.854 | 2.91 | 7.786 | 3.019 | 0.272 | 0.564 | 7.306 | 1.490 | 29.45 | 4087 | 7.051 | 1.310 | 39.22 | 4087 | 1.448 | 3.357 | -0.902 | 3.201 | 0.921 |
| 800T200-97 | 1.218 | 4.15 | 11.212 | 3.034 | 0.379 | 0.558 | 11.176 | 2.491 | 49.22 | 8843 | 10.833 | 2.347 | 70.27 | 10885 | 4.200 | 4.792 | -0.889 | 3.210 | 0.923 |
| 800T200-118 | 1.487 | 5.06 | 13.785 | 3.045 | 0.455 | 0.553 | 13.785 | 3.212 | 63.48 | 12009 | 13.785 | 3.059 | 91.59 | 16235 | 7.646 | 5.854 | -0.879 | 3.217 | 0.925 |
| 800T250-43 | 0.586 | 1.99 | 5.629 | 3.100 | 0.326 | 0.746 | 4.593 | 0.739 | 14.60 | 1030 | ---- | ---- | ---- | ----- | 0.397 | 3.877 | -1.274 | 3.433 | 0.862 |
| 800T250-54 | 0.735 | 2.50 | 7.090 | 3.106 | 0.407 | 0.744 | 5.948 | 1.193 | 23.57 | 2039 | 5.816 | 0.959 | 28.71 | 2039 | 0.785 | 4.870 | -1.268 | 3.436 | 0.864 |
| 800T250-68 | 0.926 | 3.15 | 8.978 | 3.114 | 0.509 | 0.741 | 7.917 | 1.648 | 32.57 | 4087 | 7.588 | 1.560 | 46.72 | 4087 | 1.569 | 6.151 | -1.261 | 3.441 | 0.866 |
| 800T250-97 | 1.320 | 4.49 | 12.944 | 3.132 | 0.713 | 0.735 | 12.361 | 2.641 | 52.19 | 8843 | 11.872 | 2.487 | 74.47 | 10885 | 4.550 | 8.818 | -1.247 | 3.450 | 0.869 |
| 800T250-118 | 1.611 | 5.48 | 15.930 | 3.144 | 0.860 | 0.731 | 15.822 | 3.448 | 68.14 | 12009 | 15.272 | 3.248 | 97.26 | 16235 | 8.285 | 10.807 | -1.236 | 3.457 | 0.872 |
| 80T3000-54 | 0.792 | 2.69 | 8.028 | 3.184 | 0.675 | 0.923 | 6.396 | 1.178 | 23.28 | 2039 | 6.237 | 0.956 | 28.62 | 2039 | 0.845 | 7.960 | -1.652 | 3.704 | 0.801 |
| 800T300-68 | 0.997 | 3.39 | 10.171 | 3.194 | 0.844 | 0.920 | 8.497 | 1.709 | 33.76 | 4087 | 8.160 | 1.548 | 46.36 | 4087 | 1.690 | 10.067 | -1.644 | 3.708 | 0.803 |
| 800T300-97 | 1.422 | 4.84 | 14.676 | 3.213 | 1.188 | 0.914 | 13.395 | 2.757 | 54.49 | 8843 | 12.794 | 2.586 | 77.43 | 10885 | 4.901 | 14.472 | -1.628 | 3.716 | 0.808 |
| 800T300-118 | 1.735 | 5.91 | 18.074 | 3.227 | 1.436 | 0.910 | 17.291 | 3.626 | 71.65 | 12009 | 16.563 | 3.394 | 101.63 | 16235 | 8.924 | 17.775 | -1.617 | 3.722 | 0.811 |
| 800T400-68 | 1.14 | 3.88 | 12.555 | 3.319 | 1.859 | 1.277 | 9.505 | 1.802 | 35.62 | 4087 | 9.180 | 1.520 | 45.51 | 4087 | 1.931 | 21.882 | -2.458 | 4.323 | 0.677 |
| 800T400-97 | 1.625 | 5.53 | 18.141 | 3.341 | 2.626 | 1.271 | 15.169 | 2.932 | 57.93 | 8843 | 14.387 | 2.737 | 81.95 | 10885 | 5.602 | 31.564 | -2.441 | 4.329 | 0.682 |
| 800T400-118 | 1.984 | 6.75 | 22.363 | 3.357 | 3.184 | 1.267 | 19.784 | 3.885 | 76.76 | 12009 | 18.774 | 3.612 | 108.14 | 16235 | 10.201 | 38.863 | -2.428 | 4.333 | 0.686 |
| 925T125-43[3] | 0.53 | 1.80 | 5.436 | 3.204 | 0.047 | 0.297 | 4.902 | 0.752 | 14.86 | 890 | ---- | ---- | ---- | ----- | 0.359 | 0.817 | -0.399 | 3.243 | 0.985 |
| 925T125-54 | 0.664 | 2.26 | 6.834 | 3.207 | 0.058 | 0.296 | 6.607 | 1.112 | 21.98 | 1761 | 6.228 | 0.968 | 28.99 | 1761 | 0.709 | 1.018 | -0.395 | 3.245 | 0.985 |
| 925T125-68 | 0.837 | 2.85 | 8.632 | 3.212 | 0.072 | 0.293 | 8.632 | 1.621 | 32.04 | 3528 | 8.429 | 1.440 | 43.11 | 3528 | 1.418 | 1.273 | -0.391 | 3.249 | 0.986 |
| 925T125-97 | 1.193 | 4.06 | 12.377 | 3.221 | 0.099 | 0.288 | 12.377 | 2.577 | 58.21 | 8843 | 12.377 | 2.495 | 74.71 | 10291 | 4.112 | 1.787 | -0.381 | 3.257 | 0.986 |
| 925T125-118 | 1.456 | 4.95 | 15.171 | 3.228 | 0.117 | 0.283 | 15.171 | 3.133 | 72.61 | 13189 | 15.171 | 3.133 | 107.78 | 16235 | 7.487 | 2.156 | -0.375 | 3.262 | 0.987 |
| 925T150-43[3] | 0.552 | 1.88 | 5.931 | 3.278 | 0.079 | 0.379 | 5.170 | 0.769 | 15.19 | 890 | ---- | ---- | ---- | ----- | 0.374 | 1.351 | -0.538 | 3.343 | 0.974 |
| 925T150-54 | 0.693 | 2.36 | 7.458 | 3.281 | 0.099 | 0.377 | 7.013 | 1.144 | 22.61 | 1761 | 6.575 | 0.991 | 29.66 | 1761 | 0.740 | 1.688 | -0.534 | 3.346 | 0.975 |
| 925T150-68 | 0.872 | 2.97 | 9.424 | 3.287 | 0.122 | 0.374 | 9.362 | 1.683 | 33.26 | 3528 | 8.962 | 1.484 | 44.42 | 3528 | 1.478 | 2.117 | -0.529 | 3.350 | 0.975 |
| 925T150-97 | 1.244 | 4.23 | 13.526 | 3.298 | 0.169 | 0.369 | 13.526 | 2.816 | 55.65 | 8843 | 13.526 | 2.636 | 78.91 | 10291 | 4.287 | 2.990 | -0.518 | 3.359 | 0.976 |
| 925T150-118 | 1.518 | 5.17 | 16.590 | 3.306 | 0.202 | 0.365 | 16.59 | 3.426 | 77.55 | 13189 | 16.590 | 3.426 | 115.44 | 16235 | 7.806 | 3.624 | -0.511 | 3.365 | 0.977 |
| 925T200-43[3] | 0.597 | 2.03 | 6.920 | 3.404 | 0.180 | 0.550 | 5.628 | 0.791 | 15.64 | 890 | ---- | ---- | ---- | ----- | 0.405 | 2.962 | -0.848 | 3.551 | 0.943 |
| 925T200-54 | 0.749 | 2.55 | 8.706 | 3.409 | 0.225 | 0.547 | 7.706 | 1.188 | 23.47 | 1761 | 7.168 | 1.021 | 30.57 | 1761 | 0.800 | 3.711 | -0.843 | 3.554 | 0.944 |
| 925T200-68 | 0.944 | 3.21 | 11.009 | 3.416 | 0.280 | 0.545 | 10.412 | 1.769 | 34.95 | 3528 | 9.868 | 1.544 | 46.22 | 3528 | 1.599 | 4.671 | -0.837 | 3.559 | 0.945 |
| 925T200-97 | 1.345 | 4.58 | 15.822 | 3.429 | 0.391 | 0.539 | 15.769 | 3.075 | 60.76 | 8843 | 15.362 | 2.805 | 83.99 | 10291 | 4.638 | 6.647 | -0.825 | 3.568 | 0.947 |
| 925T200-118 | 1.642 | 5.59 | 19.428 | 3.439 | 0.469 | 0.534 | 19.428 | 3.948 | 78.01 | 13189 | 19.423 | 3.773 | 112.98 | 16235 | 8.445 | 8.102 | -0.816 | 3.575 | 0.948 |
| 925T250-43[3] | 0.642 | 2.19 | 7.909 | 3.509 | 0.338 | 0.725 | 6.597 | 0.849 | 16.79 | 890 | ---- | ---- | ---- | ----- | 0.435 | 5.414 | -1.191 | 3.776 | 0.901 |
| 925T250-54 | 0.806 | 2.74 | 9.954 | 3.515 | 0.421 | 0.723 | 8.526 | 1.356 | 26.79 | 1761 | 8.343 | 1.101 | 32.97 | 1761 | 0.861 | 6.795 | -1.186 | 3.779 | 0.902 |
| 925T250-68 | 1.015 | 3.45 | 12.593 | 3.523 | 0.526 | 0.720 | 11.182 | 2.049 | 40.50 | 3528 | 10.855 | 1.781 | 53.33 | 3528 | 1.720 | 8.569 | -1.179 | 3.784 | 0.903 |
| 925T250-97 | 1.447 | 4.92 | 18.119 | 3.539 | 0.738 | 0.714 | 17.337 | 3.252 | 64.26 | 8843 | 16.692 | 3.077 | 92.13 | 10291 | 4.989 | 12.249 | -1.166 | 3.794 | 0.906 |
| 925T250-118 | 1.767 | 6.01 | 22.266 | 3.550 | 0.890 | 0.710 | 22.112 | 4.224 | 83.47 | 13189 | 21.385 | 3.997 | 119.66 | 16235 | 9.083 | 14.980 | -1.156 | 3.801 | 0.908 |
| 925T300-54 | 0.862 | 2.93 | 11.202 | 3.604 | 0.700 | 0.901 | 9.136 | 1.349 | 26.66 | 1761 | 8.919 | 1.102 | 33.01 | 1761 | 0.921 | 11.108 | -1.553 | 4.026 | 0.851 |
| 925T300-68 | 1.086 | 3.70 | 14.178 | 3.613 | 0.877 | 0.898 | 11.961 | 2.123 | 41.96 | 3528 | 11.637 | 1.771 | 53.01 | 3528 | 1.841 | 14.029 | -1.546 | 4.031 | 0.853 |
| 925T300-97 | 1.549 | 5.27 | 20.416 | 3.631 | 1.233 | 0.892 | 18.708 | 3.391 | 67.01 | 8843 | 17.92 | 3.197 | 95.71 | 10291 | 5.339 | 20.111 | -1.531 | 4.040 | 0.856 |
| 925T300-118 | 1.891 | 6.43 | 25.104 | 3.644 | 1.490 | 0.888 | 24.053 | 4.434 | 87.62 | 13189 | 23.094 | 4.170 | 124.86 | 16235 | 9.722 | 24.648 | -1.520 | 4.047 | 0.859 |
| 925T400-68 | 1.229 | 4.18 | 17.347 | 3.757 | 1.939 | 1.256 | 13.385 | 2.165 | 42.78 | 3528 | 13.032 | 1.754 | 52.51 | 3528 | 2.082 | 30.465 | -2.332 | 4.597 | 0.743 |
| 925T400-97 | 1.752 | 5.96 | 25.009 | 3.778 | 2.739 | 1.250 | 21.076 | 3.603 | 71.19 | 8843 | 20.059 | 3.382 | 101.25 | 10291 | 6.041 | 43.823 | -2.315 | 4.604 | 0.747 |
| 925T400-118 | 2.139 | 7.28 | 30.781 | 3.793 | 3.320 | 1.246 | 27.357 | 4.744 | 93.75 | 13189 | 26.039 | 4.434 | 132.75 | 16235 | 10.999 | 53.847 | -2.303 | 4.609 | 0.750 |
| 1000T125-43[3] | 0.563 | 1.92 | 6.630 | 3.431 | 0.047 | 0.290 | 5.886 | 0.819 | 16.19 | 822 | ---- | ---- | ---- | ----- | 0.382 | 0.973 | -0.379 | 3.464 | 0.988 |
| 1000T125-54 | 0.707 | 2.41 | 8.333 | 3.434 | 0.059 | 0.288 | 7.960 | 1.216 | 24.03 | 1628 | 7.479 | 1.055 | 31.59 | 1628 | 0.755 | 1.212 | -0.376 | 3.466 | 0.988 |

Table 4 continued on next page.

**TABLE 4–CHANNEL (TRACK) SECTION PROPERTIES (Continued)**

| Section | Gross Properties[1] | | | | | | 33 ksi Effective Properties[2] | | | | 50 ksi Effective Properties[2] | | | | Torsional Properties | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Area | Weight | Ixx ($in^4$) | Rx (in) | Iyy ($in^4$) | Ry (in) | Ixx ($in^4$) | Sxx ($in^3$) | Ma (in-k) | Va (lb) | Ixx ($in^4$) | Sxx ($in^3$) | Ma (in-k) | Va (lb) | Jx1000 ($in^4$) | Cw ($in^6$) | Xo (in) | Ro (in) | ß |
| 1000T125-68 | 0.89 | 3.03 | 10.522 | 3.438 | 0.073 | 0.286 | 10.452 | 1.781 | 35.19 | 3261 | 10.155 | 1.575 | 47.15 | 3261 | 1.508 | 1.515 | -0.372 | 3.470 | 0.989 |
| 1000T125-97 | 1.269 | 4.32 | 15.077 | 3.447 | 0.100 | 0.280 | 15.077 | 2.907 | 57.44 | 8843 | 15.077 | 2.753 | 82.42 | 9507 | 4.375 | 2.123 | -0.363 | 3.477 | 0.989 |
| 1000T125-118 | 1.549 | 5.27 | 18.471 | 3.453 | 0.118 | 0.276 | 18.471 | 3.540 | 82.05 | 13189 | 18.471 | 3.535 | 105.85 | 16235 | 7.966 | 2.558 | -0.357 | 3.482 | 0.990 |
| 1000T150-43[3] | 0.586 | 1.99 | 7.207 | 3.507 | 0.080 | 0.370 | 6.195 | 0.837 | 16.54 | 822 | ---- | ---- | ---- | ----- | 0.397 | 1.612 | -0.513 | 3.564 | 0.979 |
| 1000T150-54 | 0.735 | 2.50 | 9.061 | 3.511 | 0.100 | 0.368 | 8.430 | 1.249 | 24.69 | 1628 | 7.880 | 1.079 | 32.29 | 1628 | 0.785 | 2.013 | -0.509 | 3.567 | 0.980 |
| 1000T150-68 | 0.926 | 3.15 | 11.445 | 3.516 | 0.124 | 0.366 | 11.342 | 1.846 | 36.48 | 3261 | 10.774 | 1.621 | 48.53 | 3261 | 1.569 | 2.522 | -0.505 | 3.571 | 0.980 |
| 1000T150-97 | 1.320 | 4.49 | 16.413 | 3.526 | 0.171 | 0.360 | 16.413 | 3.165 | 62.54 | 8843 | 16.413 | 2.902 | 86.90 | 9507 | 4.550 | 3.557 | -0.495 | 3.579 | 0.981 |
| 1000T150-118 | 1.611 | 5.48 | 20.121 | 3.534 | 0.204 | 0.356 | 20.121 | 3.857 | 87.30 | 13189 | 20.121 | 3.852 | 115.32 | 16235 | 8.285 | 4.307 | -0.488 | 3.585 | 0.982 |
| 1000T200-43[3] | 0.631 | 2.15 | 8.361 | 3.64 | 0.183 | 0.539 | 6.722 | 0.861 | 17.01 | 822 | ---- | ---- | ---- | ----- | 0.428 | 3.540 | -0.813 | 3.769 | 0.953 |
| 1000T200-54 | 0.792 | 2.69 | 10.516 | 3.645 | 0.228 | 0.537 | 9.231 | 1.295 | 25.60 | 1628 | 8.560 | 1.111 | 33.26 | 1628 | 0.845 | 4.434 | -0.809 | 3.772 | 0.954 |
| 1000T200-68 | 0.997 | 3.39 | 13.292 | 3.651 | 0.284 | 0.534 | 12.551 | 1.936 | 38.26 | 3261 | 11.820 | 1.684 | 50.42 | 3261 | 1.690 | 5.576 | -0.803 | 3.776 | 0.955 |
| 1000T200-97 | 1.422 | 4.84 | 19.087 | 3.664 | 0.397 | 0.528 | 19.031 | 3.427 | 67.72 | 8843 | 18.583 | 3.081 | 92.25 | 9507 | 4.901 | 7.924 | -0.791 | 3.786 | 0.956 |
| 1000T200-118 | 1.735 | 5.91 | 23.422 | 3.674 | 0.476 | 0.524 | 23.422 | 4.420 | 87.35 | 13189 | 23.422 | 4.208 | 125.99 | 16235 | 8.924 | 9.649 | -0.783 | 3.793 | 0.957 |
| 1000T250-43[3] | 0.676 | 2.30 | 9.515 | 3.751 | 0.344 | 0.713 | 7.172 | 0.876 | 17.32 | 822 | ---- | ---- | ---- | ----- | 0.458 | 6.477 | -1.147 | 3.987 | 0.917 |
| 1000T250-54 | 0.848 | 2.89 | 11.972 | 3.757 | 0.429 | 0.711 | 9.913 | 1.326 | 26.20 | 1628 | 9.141 | 1.132 | 33.89 | 1628 | 0.906 | 8.125 | -1.142 | 3.99 | 0.918 |
| 1000T250-68 | 1.068 | 3.64 | 15.138 | 3.764 | 0.536 | 0.708 | 13.578 | 1.997 | 39.46 | 3261 | 12.708 | 1.726 | 51.68 | 3261 | 1.810 | 10.240 | -1.135 | 3.995 | 0.919 |
| 1000T250-97 | 1.523 | 5.18 | 21.760 | 3.780 | 0.751 | 0.702 | 20.871 | 3.596 | 71.05 | 8843 | 20.254 | 3.201 | 95.84 | 9507 | 5.252 | 14.617 | -1.122 | 4.005 | 0.921 |
| 1000T250-118 | 1.860 | 6.33 | 26.723 | 3.791 | 0.905 | 0.698 | 26.538 | 4.721 | 93.29 | 13189 | 25.721 | 4.422 | 132.38 | 16235 | 9.562 | 17.858 | -1.112 | 4.012 | 0.923 |
| 1000T300-54 | 0.905 | 3.08 | 13.427 | 3.852 | 0.714 | 0.888 | 11.083 | 1.452 | 28.69 | 1628 | 10.826 | 1.191 | 35.65 | 1628 | 0.966 | 13.289 | -1.500 | 4.228 | 0.874 |
| 1000T300-68 | 1.140 | 3.88 | 16.985 | 3.860 | 0.893 | 0.885 | 14.416 | 2.377 | 46.96 | 3261 | 14.106 | 1.904 | 57.01 | 3261 | 1.931 | 16.771 | -1.493 | 4.233 | 0.876 |
| 1000T300-97 | 1.625 | 5.53 | 24.434 | 3.878 | 1.257 | 0.879 | 22.441 | 3.798 | 75.04 | 8843 | 21.530 | 3.589 | 107.45 | 9507 | 5.602 | 24.009 | -1.478 | 4.242 | 0.879 |
| 1000T300-118 | 1.984 | 6.75 | 30.024 | 3.890 | 1.519 | 0.875 | 28.792 | 4.950 | 97.82 | 13189 | 27.680 | 4.668 | 139.76 | 16235 | 10.201 | 29.395 | -1.468 | 4.249 | 0.881 |
| 1000T400-68 | 1.282 | 4.36 | 20.678 | 4.016 | 1.982 | 1.243 | 16.172 | 2.330 | 46.04 | 3261 | 15.757 | 1.894 | 56.72 | 3261 | 2.173 | 36.414 | -2.262 | 4.774 | 0.775 |
| 1000T400-97 | 1.828 | 6.22 | 29.781 | 4.036 | 2.799 | 1.237 | 25.207 | 4.032 | 79.68 | 8843 | 24.036 | 3.795 | 113.63 | 9507 | 6.304 | 52.310 | -2.246 | 4.782 | 0.779 |
| 1000T400-118 | 2.232 | 7.60 | 36.626 | 4.051 | 3.392 | 1.233 | 32.638 | 5.292 | 104.58 | 13189 | 31.116 | 4.960 | 148.50 | 16235 | 11.478 | 64.212 | -2.234 | 4.787 | 0.782 |
| 1150T125-43[3] | 0.631 | 2.15 | 9.503 | 3.881 | 0.048 | 0.277 | 8.164 | 0.953 | 18.84 | 714 | ---- | ---- | ---- | ----- | 0.428 | 1.330 | -0.346 | 3.906 | 0.992 |
| 1150T125-54[3] | 0.792 | 2.69 | 11.940 | 3.883 | 0.06 | 0.275 | 11.109 | 1.423 | 28.11 | 1414 | 10.376 | 1.228 | 36.78 | 1414 | 0.845 | 1.656 | -0.343 | 3.908 | 0.992 |
| 1150T125-68 | 0.997 | 3.39 | 15.067 | 3.887 | 0.074 | 0.272 | 14.658 | 2.100 | 41.49 | 2832 | 14.174 | 1.844 | 55.21 | 2832 | 1.690 | 2.066 | -0.339 | 3.912 | 0.992 |
| 1150T125-97 | 1.422 | 4.84 | 21.568 | 3.895 | 0.102 | 0.267 | 21.568 | 3.493 | 69.03 | 8250 | 21.405 | 3.270 | 97.89 | 8250 | 4.901 | 2.888 | -0.331 | 3.918 | 0.993 |
| 1150T125-118 | 1.735 | 5.91 | 26.404 | 3.901 | 0.120 | 0.263 | 26.404 | 4.425 | 87.43 | 13189 | 26.404 | 4.251 | 127.26 | 15072 | 8.924 | 3.474 | -0.325 | 3.923 | 0.993 |
| 1150T150-43[1] | 0.654 | 2.22 | 3.963 | 0.082 | 0.354 | 8.563 | 0.973 | 19.220 | 714.00 | 7.262 | ---- | ---- | ----- | ---- | 2.209 | -0.470 | 4.006 | 0.986 | 0.986 |
| 1150T150-54[3] | 0.820 | 2.79 | 3.966 | 0.102 | 0.353 | 11.726 | 1.460 | 28.840 | 1414.00 | 6.87 | 1.254 | 37.56 | 1414.00 | 7.221 | 2.757 | -0.467 | 4.009 | 0.986 | 0.986 |
| 1150T150-68 | 1.033 | 3.51 | 3.971 | 0.127 | 0.350 | 15.864 | 2.173 | 42.930 | 2832.00 | 6.494 | 1.895 | 56.74 | 2832.00 | 6.825 | 3.450 | -0.463 | 4.013 | 0.987 | 0.987 |
| 1150T150-97 | 1.472 | 5.01 | 3.980 | 0.175 | 0.345 | 23.324 | 3.788 | 74.850 | 8250.00 | 6.038 | 3.437 | 102.92 | 8250.00 | 6.287 | 4.854 | -0.454 | 4.021 | 0.987 | 0.987 |
| 1150T150-118 | 1.798 | 6.12 | 3.987 | 0.209 | 0.341 | 28.569 | 4.788 | 94.610 | 13189.00 | 5.967 | 4.611 | 138.05 | 15072.00 | 6.077 | 5.866 | -0.447 | 4.026 | 0.988 | 0.988 |
| 1150T200-43[3] | 0.699 | 2.38 | 4.107 | 0.188 | 0.519 | 9.239 | 0.999 | 19.750 | 714.00 | 7.502 | ---- | ---- | ----- | ---- | 4.871 | -0.752 | 4.208 | 0.968 | 0.968 |
| 1150T200-54[3] | 0.877 | 2.98 | 4.111 | 0.234 | 0.517 | 12.758 | 1.510 | 29.840 | 1414.00 | 7.095 | 1.290 | 38.630 | 1414.00 | 7.46 | 6.095 | -0.748 | 4.210 | 0.968 | 0.968 |
| 1150T200-68 | 1.104 | 3.76 | 4.117 | 0.292 | 0.514 | 17.440 | 2.271 | 44.890 | 2832.00 | 6.695 | 1.965 | 58.820 | 2832.00 | 7.048 | 7.657 | -0.743 | 4.215 | 0.969 | 0.969 |
| 1150T200-97 | 1.574 | 5.36 | 4.129 | 0.407 | 0.508 | 26.818 | 4.079 | 80.610 | 8250.00 | 6.173 | 3.634 | 108.820 | 8250.00 | 6.464 | 10.855 | -0.732 | 4.224 | 0.970 | 0.970 |
| 1150T200-118 | 1.922 | 6.54 | 4.138 | 0.488 | 0.504 | 32.901 | 5.435 | 107.40 | 13189.00 | 5.995 | 5.010 | 149.990 | 15072.00 | 6.196 | 13.195 | -0.724 | 4.231 | 0.971 | 0.971 |
| 1150T250-43[3] | 0.744 | 2.53 | 13.307 | 4.230 | 0.354 | 0.690 | 9.811 | 1.0170 | 20.09 | 714 | ---- | ---- | ---- | ----- | 0.504 | 8.930 | -1.068 | 4.417 | 0.942 |
| 1150T250-54[3] | 0.933 | 3.18 | 16.734 | 4.235 | 0.442 | 0.688 | 13.633 | 1.544 | 30.51 | 1414 | 12.505 | 1.314 | 39.33 | 1414 | 0.997 | 11.194 | -1.063 | 4.420 | 0.942 |
| 1150T250-68 | 1.175 | 4.00 | 21.145 | 4.242 | 0.552 | 0.685 | 18.774 | 2.338 | 46.19 | 2832 | 17.476 | 2.011 | 60.20 | 2832 | 1.992 | 14.091 | -1.057 | 4.425 | 0.943 |
| 1150T250-97 | 1.676 | 5.70 | 30.350 | 4.256 | 0.773 | 0.679 | 29.267 | 4.265 | 84.27 | 8250 | 28.347 | 3.765 | 112.73 | 8250 | 5.778 | 20.068 | -1.045 | 4.434 | 0.944 |
| 1150T250-118 | 2.046 | 6.96 | 37.232 | 4.266 | 0.932 | 0.675 | 36.975 | 5.784 | 114.30 | 13189 | 36.017 | 5.244 | 157.00 | 15072 | 10.520 | 24.476 | -1.036 | 4.441 | 0.946 |
| 1150T300-54[3] | 0.990 | 3.37 | 18.651 | 4.341 | 0.738 | 0.863 | 15.715 | 1.659 | 32.78 | 1414 | 14.899 | 1.368 | 40.97 | 1414 | 1.057 | 18.327 | -1.404 | 4.643 | 0.909 |
| 1150T300-68 | 1.247 | 4.24 | 23.576 | 4.349 | 0.923 | 0.860 | 20.405 | 2.683 | 53.01 | 2832 | 19.977 | 2.173 | 65.06 | 2832 | 2.113 | 23.104 | -1.397 | 4.648 | 0.910 |
| 1150T300-97 | 1.778 | 6.05 | 33.862 | 4.365 | 1.298 | 0.855 | 31.233 | 4.668 | 92.25 | 8250 | 30.048 | 4.432 | 132.69 | 8250 | 6.128 | 32.999 | -1.384 | 4.658 | 0.912 |
| 1150T300-118 | 2.170 | 7.38 | 41.563 | 4.376 | 1.569 | 0.850 | 39.925 | 6.054 | 119.62 | 13189 | 38.473 | 5.734 | 171.67 | 15072 | 11.159 | 40.336 | -1.374 | 4.665 | 0.913 |
| 1150T400-68 | 1.389 | 4.73 | 28.438 | 4.524 | 2.057 | 1.217 | 22.766 | 2.659 | 52.54 | 2832 | 22.207 | 2.176 | 65.14 | 2832 | 2.354 | 50.181 | -2.136 | 5.149 | 0.828 |
| 1150T400-97 | 1.981 | 6.74 | 40.888 | 4.543 | 2.905 | 1.211 | 34.891 | 4.950 | 97.82 | 8250 | 33.497 | 4.547 | 136.13 | 8250 | 6.829 | 71.928 | -2.121 | 5.158 | 0.831 |
| 1150T400-118 | 2.419 | 8.23 | 50.225 | 4.557 | 3.520 | 1.206 | 44.979 | 6.460 | 127.66 | 13189 | 43.009 | 6.084 | 182.16 | 15072 | 12.436 | 88.152 | -2.110 | 5.165 | 0.833 |
| 1200T125-54[3] | 0.820 | 2.79 | 13.335 | 4.033 | 0.060 | 0.271 | 12.296 | 1.491 | 29.47 | 1354 | 11.460 | 1.286 | 38.51 | 1354 | 0.876 | 1.820 | -0.333 | 4.055 | 0.993 |
| 1200T125-68 | 1.033 | 3.51 | 16.826 | 4.036 | 0.074 | 0.268 | 16.246 | 2.206 | 43.60 | 2713 | 15.686 | 1.934 | 57.90 | 2713 | 1.750 | 2.270 | -0.329 | 4.059 | 0.993 |
| 1200T125-97 | 1.472 | 5.01 | 24.078 | 4.044 | 0.102 | 0.263 | 24.078 | 3.690 | 72.92 | 7902 | 23.751 | 3.442 | 103.06 | 7902 | 5.076 | 3.171 | -0.322 | 4.065 | 0.994 |
| 1200T125-118 | 1.798 | 6.12 | 29.472 | 4.049 | 0.121 | 0.259 | 29.472 | 4.740 | 93.67 | 13189 | 29.472 | 4.490 | 134.44 | 14434 | 9.243 | 3.812 | -0.316 | 4.070 | 0.994 |
| 1200T150-54[3] | 0.848 | 2.89 | 14.378 | 4.117 | 0.103 | 0.348 | 12.962 | 1.530 | 30.23 | 1354 | 12.020 | 1.313 | 39.31 | 1354 | 0.906 | 3.033 | -0.454 | 4.156 | 0.988 |
| 1200T150-68 | 1.068 | 3.64 | 18.148 | 4.121 | 0.127 | 0.345 | 17.568 | 2.281 | 45.08 | 2713 | 16.566 | 1.987 | 59.48 | 2713 | 1.810 | 3.795 | -0.450 | 4.160 | 0.988 |
| 1200T150-97 | 1.523 | 5.18 | 25.987 | 4.130 | 0.176 | 0.340 | 25.987 | 3.996 | 78.97 | 7902 | 25.719 | 3.616 | 108.27 | 7902 | 5.252 | 5.335 | -0.441 | 4.168 | 0.989 |
| 1200T150-118 | 1.860 | 6.33 | 31.825 | 4.137 | 0.210 | 0.336 | 31.825 | 5.119 | 101.15 | 13189 | 31.825 | 4.865 | 145.66 | 14434 | 9.562 | 6.444 | -0.435 | 4.173 | 0.989 |
| 1200T200-54[3] | 0.905 | 3.08 | 16.464 | 4.265 | 0.236 | 0.510 | 14.078 | 1.582 | 31.26 | 1354 | 12.962 | 1.350 | 40.41 | 1354 | 0.966 | 6.714 | -0.73 | 4.357 | 0.972 |
| 1200T200-68 | 1.140 | 3.88 | 20.791 | 4.271 | 0.294 | 0.508 | 19.277 | 2.383 | 47.09 | 2713 | 18.026 | 2.058 | 61.62 | 2713 | 1.931 | 8.431 | -0.725 | 4.362 | 0.972 |
| 1200T200-97 | 1.625 | 5.53 | 29.805 | 4.283 | 0.410 | 0.502 | 29.805 | 4.298 | 84.93 | 7902 | 28.959 | 3.819 | 114.35 | 7902 | 5.602 | 11.945 | -0.714 | 4.371 | 0.973 |
| 1200T200-118 | 1.984 | 6.75 | 36.530 | 4.291 | 0.492 | 0.498 | 36.53 | 5.794 | 114.50 | 13189 | 36.530 | 5.278 | 158.02 | 14434 | 10.201 | 14.513 | -0.706 | 4.377 | 0.974 |
| 1200T250-54[3] | 0.962 | 3.27 | 18.550 | 4.392 | 0.445 | 0.681 | 15.021 | 1.617 | 31.95 | 1354 | 13.756 | 1.374 | 41.14 | 1354 | 1.027 | 12.339 | -1.039 | 4.565 | 0.948 |
| 1200T250-68 | 1.211 | 4.12 | 23.435 | 4.399 | 0.556 | 0.678 | 20.72 | 2.451 | 48.44 | 2713 | 19.255 | 2.106 | 63.04 | 2713 | 2.052 | 15.529 | -1.033 | 4.569 | 0.949 |
| 1200T250-97 | 1.727 | 5.88 | 33.623 | 4.413 | 0.780 | 0.672 | 32.479 | 4.489 | 88.7 | 7902 | 31.310 | 3.954 | 118.37 | 7902 | 5.953 | 22.101 | -1.021 | 4.579 | 0.950 |
| 1200T250-118 | 2.108 | 7.17 | 41.236 | 4.423 | 0.940 | 0.668 | 40.963 | 6.138 | 121.28 | 13189 | 39.954 | 5.519 | 165.24 | 14434 | 10.839 | 26.943 | -1.013 | 4.586 | 0.951 |
| 1200T300-54[3] | 1.018 | 3.46 | 20.636 | 4.502 | 0.745 | 0.855 | 15.856 | 1.641 | 32.44 | 1354 | 14.451 | 1.391 | 41.65 | 1354 | 1.087 | 20.211 | -1.375 | 4.784 | 0.917 |
| 1200T300-68 | 1.282 | 4.36 | 26.079 | 4.510 | 0.932 | 0.852 | 21.991 | 2.501 | 49.41 | 2713 | 20.338 | 2.140 | 64.06 | 2713 | 2.173 | 25.471 | -1.369 | 4.789 | 0.918 |
| 1200T300-97 | 1.828 | 6.22 | 37.441 | 4.525 | 1.310 | 0.847 | 34.841 | 4.629 | 91.46 | 7902 | 33.377 | 4.051 | 121.30 | 7902 | 6.304 | 36.357 | -1.355 | 4.799 | 0.920 |
| 1200T300-118 | 2.232 | 7.60 | 45.941 | 4.537 | 1.583 | 0.842 | 44.194 | 6.386 | 126.18 | 13189 | 42.885 | 5.695 | 170.51 | 14434 | 11.478 | 44.420 | -1.346 | 4.806 | 0.922 |
| 1200T400-68 | 1.425 | 4.85 | 31.366 | 4.692 | 2.080 | 1.208 | 25.284 | 2.769 | 54.71 | 2713 | 24.674 | 2.270 | 67.95 | 2713 | 2.415 | 55.338 | -2.098 | 5.279 | 0.842 |
| 1200T400-97 | 2.032 | 6.91 | 45.077 | 4.710 | 2.936 | 1.202 | 38.563 | 5.274 | 104.22 | 7902 | 37.171 | 4.725 | 141.46 | 7902 | 7.005 | 79.270 | -2.082 | 5.288 | 0.845 |
| 1200T400-118 | 2.481 | 8.44 | 55.352 | 4.724 | 3.559 | 1.198 | 49.649 | 6.871 | 135.78 | 13189 | 47.518 | 6.480 | 194.02 | 14434 | 12.755 | 97.107 | -2.071 | 5.295 | 0.847 |
| 1350T125-54[3] | 0.905 | 3.08 | 18.150 | 4.479 | 0.061 | 0.259 | 16.262 | 1.698 | 33.55 | 1203 | 15.078 | 1.459 | 43.69 | 1203 | 0.966 | 2.362 | -0.307 | 4.497 | 0.995 |
| 1350T125-68 | 1.140 | 3.88 | 22.894 | 4.482 | 0.075 | 0.257 | 21.58 | 2.526 | 49.91 | 2409 | 20.753 | 2.203 | 65.96 | 2409 | 1.931 | 2.944 | -0.303 | 4.500 | 0.995 |
| 1350T125-97 | 1.625 | 5.53 | 32.740 | 4.489 | 0.103 | 0.252 | 32.677 | 4.282 | 84.62 | 7014 | 31.658 | 3.961 | 118.59 | 7014 | 5.602 | 4.105 | -0.296 | 4.505 | 0.996 |

Table 4 continued on next page.

**TABLE 4—CHANNEL (TRACK) SECTION PROPERTIES (Continued)**

| Section | Gross Properties[1] | | | | | | 33 ksi Effective Properties[2] | | | | 50 ksi Effective Properties[2] | | | | Torsional Properties | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Area | Weight | Ixx ($in^4$) | Rx (in) | Iyy ($in^4$) | Ry (in) | Ixx ($in^4$) | Sxx ($in^3$) | Ma (in-k) | Va (lb) | Ixx ($in^4$) | Sxx ($in^3$) | Ma (in-k) | Va (lb) | Jx1000 ($in^4$) | Cw ($in^6$) | Xo (in) | Ro (in) | ß |
| 1350T125-118 | 1.984 | 6.75 | 40.054 | 4.493 | 0.123 | 0.249 | 40.054 | 5.577 | 110.20 | 12808 | 39.969 | 5.212 | 156.05 | 12808 | 10.201 | 4.928 | -0.291 | 4.510 | 0.996 |
| 1350T150-54[3] | 0.933 | 3.18 | 19.467 | 4.567 | 0.104 | 0.334 | 17.098 | 1.740 | 34.38 | 1203 | 15.773 | 1.489 | 44.57 | 1203 | 0.997 | 3.947 | -0.421 | 4.599 | 0.992 |
| 1350T150-68 | 1.175 | 4.00 | 24.562 | 4.571 | 0.129 | 0.332 | 23.293 | 2.608 | 51.53 | 2409 | 21.855 | 2.261 | 67.68 | 2409 | 1.992 | 4.933 | -0.417 | 4.602 | 0.992 |
| 1350T150-97 | 1.676 | 5.70 | 35.144 | 4.579 | 0.179 | 0.327 | 35.067 | 4.624 | 91.38 | 7014 | 34.160 | 4.153 | 124.33 | 7014 | 5.778 | 6.924 | -0.408 | 4.609 | 0.992 |
| 1350T150-118 | 2.046 | 6.96 | 43.016 | 4.585 | 0.213 | 0.323 | 43.016 | 6.000 | 118.55 | 12808 | 42.912 | 5.631 | 168.58 | 12808 | 10.520 | 8.353 | -0.402 | 4.614 | 0.992 |
| 1350T200-54[3] | 0.990 | 3.37 | 22.100 | 4.725 | 0.240 | 0.493 | 18.481 | 1.797 | 35.50 | 1203 | 16.933 | 1.529 | 45.78 | 1203 | 1.057 | 8.769 | -0.680 | 4.799 | 0.980 |
| 1350T200-68 | 1.247 | 4.24 | 27.896 | 4.730 | 0.299 | 0.490 | 25.437 | 2.719 | 53.72 | 2409 | 23.666 | 2.339 | 70.02 | 2409 | 2.113 | 11.002 | -0.675 | 4.803 | 0.980 |
| 1350T200-97 | 1.778 | 6.05 | 39.954 | 4.741 | 0.418 | 0.485 | 39.954 | 4.955 | 97.91 | 7014 | 38.298 | 4.374 | 130.95 | 7014 | 6.128 | 15.561 | -0.666 | 4.812 | 0.981 |
| 1350T200-118 | 2.170 | 7.38 | 48.938 | 4.749 | 0.501 | 0.481 | 48.938 | 6.745 | 133.29 | 12808 | 48.938 | 6.084 | 182.17 | 12808 | 11.159 | 18.883 | -0.658 | 4.818 | 0.981 |
| 1350T250-54[3] | 1.046 | 3.56 | 24.733 | 4.862 | 0.455 | 0.660 | 19.647 | 1.834 | 36.25 | 1203 | 17.905 | 1.556 | 46.57 | 1203 | 1.117 | 16.152 | -0.974 | 5.002 | 0.962 |
| 1350T250-68 | 1.318 | 4.48 | 31.231 | 4.868 | 0.569 | 0.657 | 27.222 | 2.792 | 55.18 | 2409 | 25.180 | 2.390 | 71.56 | 2409 | 2.233 | 20.311 | -0.969 | 5.007 | 0.963 |
| 1350T250-97 | 1.879 | 6.39 | 44.764 | 4.881 | 0.797 | 0.651 | 43.449 | 5.161 | 101.99 | 7014 | 41.227 | 4.519 | 135.30 | 7014 | 6.479 | 28.858 | -0.957 | 5.016 | 0.964 |
| 1350T250-118 | 2.294 | 7.81 | 54.860 | 4.890 | 0.961 | 0.647 | 54.611 | 7.112 | 140.55 | 12808 | 53.395 | 6.346 | 189.99 | 12808 | 11.797 | 35.137 | -0.949 | 5.023 | 0.964 |
| 1350T300-54[3] | 1.103 | 3.75 | 27.366 | 4.981 | 0.764 | 0.832 | 20.668 | 1.862 | 36.79 | 1203 | 18.754 | 1.574 | 47.14 | 1203 | 1.178 | 26.494 | -1.295 | 5.213 | 0.938 |
| 1350T300-68 | 1.389 | 4.73 | 34.566 | 4.988 | 0.955 | 0.829 | 28.793 | 2.846 | 56.23 | 2409 | 26.515 | 2.427 | 72.67 | 2409 | 2.354 | 33.361 | -1.289 | 5.218 | 0.939 |
| 1350T300-97 | 1.981 | 6.74 | 49.574 | 5.003 | 1.343 | 0.824 | 46.466 | 5.312 | 104.97 | 7014 | 43.800 | 4.624 | 138.45 | 7014 | 6.829 | 47.541 | -1.276 | 5.228 | 0.940 |
| 1350T300-118 | 2.419 | 8.23 | 60.782 | 5.013 | 1.623 | 0.819 | 58.718 | 7.381 | 145.84 | 12808 | 57.131 | 6.535 | 195.67 | 12808 | 12.436 | 58.014 | -1.267 | 5.235 | 0.941 |
| 1350T400-68 | 1.532 | 5.21 | 41.236 | 5.188 | 2.141 | 1.182 | 33.862 | 3.099 | 61.24 | 2409 | 33.002 | 2.552 | 76.41 | 2409 | 2.596 | 72.561 | -1.990 | 5.681 | 0.877 |
| 1350T400-97 | 2.184 | 7.43 | 59.194 | 5.206 | 3.023 | 1.176 | 51.002 | 6.297 | 124.44 | 7014 | 49.671 | 5.259 | 157.45 | 7014 | 7.531 | 103.775 | -1.976 | 5.691 | 0.879 |
| 1350T400-118 | 2.667 | 9.08 | 72.626 | 5.218 | 3.663 | 1.172 | 65.435 | 8.167 | 161.38 | 12808 | 62.783 | 7.733 | 231.52 | 12808 | 13.713 | 126.976 | -1.965 | 5.698 | 0.881 |
| 1400T125-54[3] | 0.933 | 3.18 | 19.977 | 4.627 | 0.061 | 0.256 | 17.725 | 1.767 | 34.91 | 1160 | 16.407 | 1.517 | 45.42 | 1160 | 0.997 | 2.559 | -0.299 | 4.643 | 0.996 |
| 1400T125-68 | 1.175 | 4.00 | 25.196 | 4.630 | 0.076 | 0.254 | 23.552 | 2.632 | 52.01 | 2322 | 22.62 | 2.293 | 68.64 | 2322 | 1.992 | 3.189 | -0.296 | 4.646 | 0.996 |
| 1400T125-97 | 1.676 | 5.70 | 36.024 | 4.636 | 0.104 | 0.249 | 35.775 | 4.480 | 88.53 | 6761 | 34.588 | 4.134 | 123.76 | 6761 | 5.778 | 4.445 | -0.289 | 4.652 | 0.996 |
| 1400T125-118 | 2.046 | 6.96 | 44.068 | 4.641 | 0.123 | 0.245 | 44.068 | 5.853 | 115.67 | 12344 | 43.752 | 5.453 | 163.27 | 12344 | 10.520 | 5.334 | -0.284 | 4.656 | 0.996 |
| 1400T150-54[3] | 0.962 | 3.27 | 21.392 | 4.717 | 0.105 | 0.330 | 18.620 | 1.810 | 35.76 | 1160 | 17.153 | 1.547 | 46.33 | 1160 | 1.027 | 4.280 | -0.410 | 4.746 | 0.993 |
| 1400T150-68 | 1.211 | 4.12 | 26.987 | 4.721 | 0.130 | 0.327 | 25.409 | 2.717 | 53.68 | 2322 | 23.803 | 2.352 | 70.42 | 2322 | 2.052 | 5.349 | -0.407 | 4.749 | 0.993 |
| 1400T150-97 | 1.727 | 5.88 | 38.607 | 4.729 | 0.180 | 0.322 | 38.340 | 4.834 | 95.52 | 6761 | 37.285 | 4.332 | 129.69 | 6761 | 5.953 | 7.503 | -0.399 | 4.756 | 0.993 |
| 1400T150-118 | 2.108 | 7.17 | 47.247 | 4.734 | 0.214 | 0.319 | 47.247 | 6.291 | 124.31 | 12344 | 46.911 | 5.886 | 176.24 | 12344 | 10.839 | 9.048 | -0.393 | 4.761 | 0.993 |
| 1400T200-54[3] | 1.018 | 3.46 | 24.221 | 4.878 | 0.242 | 0.487 | 20.098 | 1.868 | 36.92 | 1160 | 18.387 | 1.589 | 47.56 | 1160 | 1.087 | 9.520 | -0.665 | 4.947 | 0.982 |
| 1400T200-68 | 1.282 | 4.36 | 30.571 | 4.883 | 0.301 | 0.485 | 27.707 | 2.830 | 55.93 | 2322 | 25.738 | 2.432 | 72.81 | 2322 | 2.173 | 11.942 | -0.661 | 4.951 | 0.982 |
| 1400T200-97 | 1.828 | 6.22 | 43.773 | 4.893 | 0.420 | 0.479 | 43.679 | 5.174 | 102.24 | 6761 | 41.749 | 4.559 | 136.48 | 6761 | 6.304 | 16.883 | -0.651 | 4.959 | 0.983 |
| 1400T200-118 | 2.232 | 7.60 | 53.606 | 4.900 | 0.504 | 0.475 | 53.606 | 7.062 | 139.54 | 12344 | 53.453 | 6.354 | 190.23 | 12344 | 11.478 | 20.479 | -0.644 | 4.965 | 0.983 |
| 1400T250-54[3] | 1.075 | 3.66 | 27.051 | 5.017 | 0.458 | 0.653 | 21.342 | 1.907 | 37.68 | 1160 | 19.421 | 1.616 | 48.38 | 1160 | 1.148 | 17.550 | -0.954 | 5.149 | 0.966 |
| 1400T250-68 | 1.354 | 4.61 | 34.154 | 5.023 | 0.573 | 0.650 | 29.615 | 2.906 | 57.42 | 2322 | 27.352 | 2.485 | 74.40 | 2322 | 2.294 | 22.063 | -0.949 | 5.153 | 0.966 |
| 1400T250-97 | 1.930 | 6.57 | 48.939 | 5.036 | 0.803 | 0.645 | 47.449 | 5.386 | 106.42 | 6761 | 44.883 | 4.708 | 140.94 | 6761 | 6.654 | 31.333 | -0.938 | 5.163 | 0.967 |
| 1400T250-118 | 2.356 | 8.02 | 59.964 | 5.044 | 0.967 | 0.641 | 59.734 | 7.438 | 146.99 | 12344 | 58.277 | 6.622 | 198.25 | 12344 | 12.117 | 38.137 | -0.930 | 5.169 | 0.968 |
| 1400T300-54[3] | 1.131 | 3.85 | 29.881 | 5.139 | 0.769 | 0.825 | 22.429 | 1.935 | 38.24 | 1160 | 20.324 | 1.635 | 48.96 | 1160 | 1.208 | 28.800 | -1.271 | 5.358 | 0.944 |
| 1400T300-68 | 1.425 | 4.85 | 37.737 | 5.146 | 0.962 | 0.822 | 31.291 | 2.961 | 58.50 | 2322 | 28.775 | 2.523 | 75.54 | 2322 | 2.415 | 36.257 | -1.265 | 5.363 | 0.944 |
| 1400T300-97 | 2.032 | 6.91 | 54.105 | 5.160 | 1.353 | 0.816 | 50.615 | 5.540 | 109.48 | 6761 | 47.633 | 4.815 | 144.17 | 6761 | 7.005 | 51.644 | -1.252 | 5.373 | 0.946 |
| 1400T300-118 | 2.481 | 8.44 | 66.323 | 5.171 | 1.635 | 0.812 | 64.159 | 7.713 | 152.42 | 12344 | 62.201 | 6.816 | 204.06 | 12344 | 12.755 | 62.998 | -1.243 | 5.38 | 0.947 |
| 1400T400-68 | 1.567 | 5.33 | 44.903 | 5.352 | 2.160 | 1.174 | 37.078 | 3.210 | 63.43 | 2322 | 35.376 | 2.647 | 79.24 | 2322 | 2.656 | 78.896 | -1.957 | 5.818 | 0.887 |
| 1400T400-97 | 2.235 | 7.61 | 64.437 | 5.369 | 3.049 | 1.168 | 55.644 | 6.656 | 131.52 | 6761 | 54.354 | 5.437 | 162.79 | 6761 | 7.706 | 112.783 | -1.943 | 5.828 | 0.889 |
| 1400T400-118 | 2.729 | 9.29 | 79.041 | 5.382 | 3.695 | 1.164 | 71.315 | 8.620 | 170.34 | 12344 | 68.478 | 8.172 | 244.66 | 12344 | 14.032 | 137.951 | -1.932 | 5.835 | 0.890 |
| 1600T125-54 | 1.046 | 3.56 | 28.485 | 5.217 | 0.062 | 0.243 | - | - | - | - | - | - | - | - | 1.117 | 3.432 | -0.272 | 5.230 | 0.997 |
| 1600T125-68[1] | 1.318 | 4.48 | 35.916 | 5.220 | 0.077 | 0.241 | 32.443 | 3.058 | 60.42 | 2030 | 31.004 | 2.651 | 79.37 | 2030 | 2.233 | 4.273 | -0.268 | 5.233 | 0.997 |
| 1600T125-97 | 1.879 | 6.39 | 51.322 | 5.226 | 0.105 | 0.237 | 49.844 | 5.273 | 104.19 | 5908 | 47.830 | 4.825 | 144.47 | 5908 | 6.479 | 5.945 | -0.262 | 5.238 | 0.997 |
| 1600T125-118 | 2.294 | 7.81 | 62.755 | 5.230 | 0.125 | 0.233 | 62.755 | 6.965 | 137.62 | 10783 | 60.930 | 6.420 | 192.21 | 10783 | 11.797 | 7.126 | -0.257 | 5.241 | 0.998 |
| 1600T150-54[14] | 1.075 | 3.66 | 30.328 | 5.312 | 0.106 | 0.314 | - | - | - | - | - | - | - | - | 1.148 | 5.757 | -0.374 | 5.335 | 0.995 |
| 1600T150-68[1] | 1.354 | 4.61 | 38.249 | 5.316 | 0.132 | 0.312 | 34.945 | 3.152 | 62.28 | 2030 | 32.537 | 2.717 | 81.34 | 2030 | 2.294 | 7.188 | -0.371 | 5.338 | 0.995 |
| 1600T150-97 | 1.930 | 6.57 | 54.681 | 5.323 | 0.182 | 0.307 | 53.172 | 5.674 | 112.12 | 5908 | 51.382 | 5.047 | 151.11 | 5908 | 6.654 | 10.066 | -0.363 | 5.344 | 0.995 |
| 1600T150-118 | 2.356 | 8.02 | 66.886 | 5.328 | 0.217 | 0.304 | 66.886 | 7.460 | 147.41 | 10783 | 65.023 | 6.911 | 206.91 | 10783 | 12.117 | 12.124 | -0.358 | 5.348 | 0.996 |
| 1600T200-54[14] | 1.131 | 3.85 | 34.015 | 5.483 | 0.246 | 0.467 | - | - | - | - | - | - | - | - | 1.208 | 12.864 | -0.612 | 5.537 | 0.988 |
| 1600T200-68[1] | 1.425 | 4.85 | 42.914 | 5.488 | 0.307 | 0.464 | 37.904 | 3.277 | 64.76 | 2030 | 35.009 | 2.805 | 83.99 | 2030 | 2.415 | 16.123 | -0.607 | 5.541 | 0.988 |
| 1600T200-97 | 2.032 | 6.91 | 61.398 | 5.497 | 0.428 | 0.459 | 60.199 | 6.052 | 119.60 | 5908 | 57.292 | 5.298 | 158.62 | 5908 | 7.005 | 22.755 | -0.598 | 5.549 | 0.988 |
| 1600T200-118 | 2.481 | 8.44 | 75.146 | 5.504 | 0.514 | 0.455 | 75.146 | 8.331 | 164.63 | 10783 | 73.613 | 7.433 | 222.53 | 10783 | 12.755 | 27.568 | -0.592 | 5.554 | 0.989 |

For **SI:** 1 inch = 25.4mm, 1 pound = 4.4482 N.

[1]Gross properties and torsional properties are based on the full-unreduced cross section of the studs, away from web punch-outs.
[2]Use the effective moment of inertia for deflection calculations.
[3]Web height to thickness ratio, h/t, exceeds 200. Web must have bearing stiffeners in accordance with AISI S100.
[4]Where effective properties are not provided web to height-to-thickness ratio exceeds 260.

*SYMBOLS:*

Ixx=Strong axis moment of inertia.
Rx=Strong axis radius of gyration.
Iyy=Weak axis moment of inertia.
Ry=Weak axis radius of gyration.
Sxx=Strong axis section modulus.
Ma=Allowable bending moment .
Va = Allowable shear.
Ycg= Distance from top of flange to effective center of gravity**.**
J=St. Venant torsion constant.
Cw=Warping constant.
Xo=Distance from shear center to neutral axis.
Ro=Radii of gyration.
β=Torsional flexural constant.

**TABLE 5—U CHANNELS STRUCTURAL PROPERTIES[1,2]**

| SECTION[5] | MILS | DESIGN THICK. (in) | MIN. BASE METAL THICK. (in) | INSIDE CORNER RADII (in) | WEIGHT (lb/ft) | GROSS SECTION PROPERTIES[3] | | | | | EFFECTIVE SECTION PROPERTIES | | | ALLOWABLE MOMENT[4] $M_a$ (in-k) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Area ($in^2$) | $I_x$ ($in^4$) | rx (in) | $I_y$ ($in^4$) | $r_y$ (in) | $I_x$ ($in^4$) | $S_x$ ($in^3$) | Area ($in^2$) | |
| 75U050-54 | 54 | 0.0566 | 0.0538 | 0.0849 | 0.30 | 0.087 | 0.007 | 0.288 | 0.002 | 0.155 | 0.007 | 0.019 | 0.087 | 0.45 |
| 150U050-54 | 54 | 0.0566 | 0.0538 | 0.0849 | 0.44 | 0.129 | 0.039 | 0.547 | 0.003 | 0.144 | 0.039 | 0.052 | 0.129 | 1.22 |
| 200U050-54 | 54 | 0.0566 | 0.0538 | 0.0849 | 0.54 | 0.157 | 0.079 | 0.709 | 0.003 | 0.136 | 0.079 | 0.079 | 0.157 | 1.87 |
| 250U050-54 | 54 | 0.0566 | 0.0538 | 0.0849 | 0.63 | 0.186 | 0.139 | 0.866 | 0.003 | 0.128 | 0.139 | 0.111 | 0.186 | 2.64 |

For **SI:** 1 inch = 25.4 mm, 1 lb/ft = 1.488 kg/m, 1 in-lb = 11.30 N-m.

$I_x$ = Strong axis moment of inertia. $r_y$ = Weak axis radius of gyration.
$r_x$ = Strong axis radius of gyration. $S_x$ = Strong axis section modulus.
$I_y$ = Weak axis moment of inertia.

[1]$F_y$ = 33 ksi.
[2]Use the effective moment of inertia for deflection calculations.
[3]Gross properties are based on the full-unreduced cross section of the U channel.
[4]Full lateral support of compression flanges must be provided.
[5]Depth of member is measured from outside face to outside face of flanges. See Figure 1.

**TABLE 6—HAT FURRING CHANNEL PROPERTIES[1,3]**

| SECTION | MILS | DESIGN THICK. (in) | MIN. BASE METAL THICK. (in) | INSIDE CORNER RADII (in) | WEIGHT (lb/ft) | DEPTH (in) | GROSS SECTION PROPERTIES | | | | | EFFECTIVE SECTION PROPERTIES | | ALLOWABLE MOMENT[2] $M_a$ (ft-lb) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Area ($in^2$) | $I_x$ ($in^4$) | $r_x$ (in) | $I_y$ ($in^4$) | $r_y$ (in) | $I_x$ ($in^4$) | $S_x$ ($in^3$) | |
| 087F125-18 | 18 | 0.0188 | 0.0179 | 0.0843 | 0.239 | 0.875 | 0.0702 | 0.0089 | 0.356 | 0.0354 | 0.710 | 0.0086 | 0.0160 | 26.41 |
| 087F125-30 | 30 | 0.0312 | 0.0296 | 0.0784 | 0.391 | 0.875 | 0.1149 | 0.0143 | 0.353 | 0.0580 | 0.710 | 0.0143 | 0.0365 | 50.47 |
| 150F125-18 | 18 | 0.0188 | 0.0179 | 0.0843 | 0.320 | 1.500 | 0.0939 | 0.0311 | 0.575 | 0.0467 | 0.705 | 0.0299 | 0.0344 | 56.59 |
| 150F125-30 | 30 | 0.0312 | 0.0296 | 0.0784 | 0.525 | 1.500 | 0.1543 | 0.0503 | 0.571 | 0.0797 | 0.705 | 0.0503 | 0.0639 | 105.25 |

For **SI:** 1 inch = 25.4 mm, 1 lb/ft = 1.488 kg/m, 1 in-lb = 11.30 N-m.

$I_x$ = Strong axis moment of inertia.
$r_x$ = Strong axis radius of gyration.
$I_y$= Weak axis moment of inertia.
$r_y$ = Weak axis radius of gyration.
$S_x$ = Strong axis section modulus.

[1]$F_y$ = 33 ksi.
[2]Allowable moment is applicable for both positive and negative moments. Full lateral support of compression flanges must be provided.
[3]Use the effective moment of inertia for deflection calculations.

**TABLE 7—C-SECTIONS (STUDS) FOR USE WITH THE IRC[1]**

| IRC MEMBER DESIGNATION | EQUIVALENT TELLING INDUSTRIES MEMBER DESIGNATION | | | |
|---|---|---|---|---|
| | t = 33 | t = 43 | t = 54 | t = 68 |
| 350S162-t | 350S162-33 | 350S162-43 | 350S162-54 | 350S162-68 |
| | 350S200-33 | 350S200-43 | 350S200-54 | 350S200-68 |
| 550S162-t | 550S162-33 | 550S162-43 | 550S162-54 | 550S162-68 |
| | 550S200-33 | 550S200-43 | 550S200-54 | 550S200-68 |
| 800S162-t | 800S162-33 | 800S162-43 | 800S162-54 | 800S162-68 |
| | 800S200-33 | 800S200-43 | 800S200-54 | 800S200-68 |
| 1000S162-t | --- | 1000S162-43 | 1000S162-54 | 1000S162-68 |
| | --- | 1000S200-43 | 1000S200-54 | 1000S200-68 |
| 1200S162-t | --- | --- | 1200S162-54 | 1200S162-68 |
| | --- | --- | 1200S200-54 | 1200S200-68 |

1. Under the 2018 and 2015 IBC: Minimum Grade 33 ksi steel must be used wherever 33 mil and 43 mil thicknesses are specified; and Minimum Grade 50 ksi steel must be used wherever 54 mil and 68 mil thicknesses are specified.

**TABLE 8—MANUFACTURING LOCATIONS**

| | |
|---|---|
| Telling Industries<br>Kingman, Arizona 86409<br>928-681-8409 | Telling Industries<br>Osceola, Arkansas 72370<br>870-563-2597 |
| Telling Industries<br>Cambridge, Ohio 43725<br>740-435-8900 | |

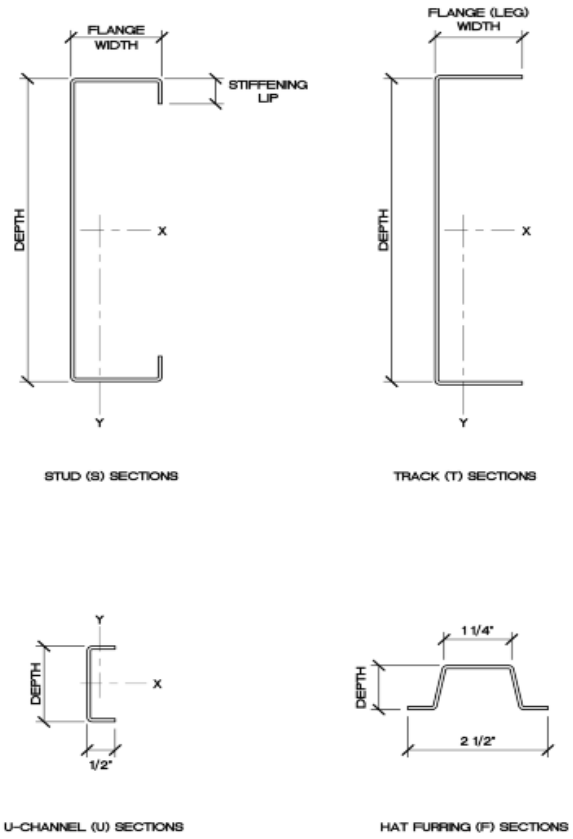


**FIGURE 1—SECTION PROFILES**

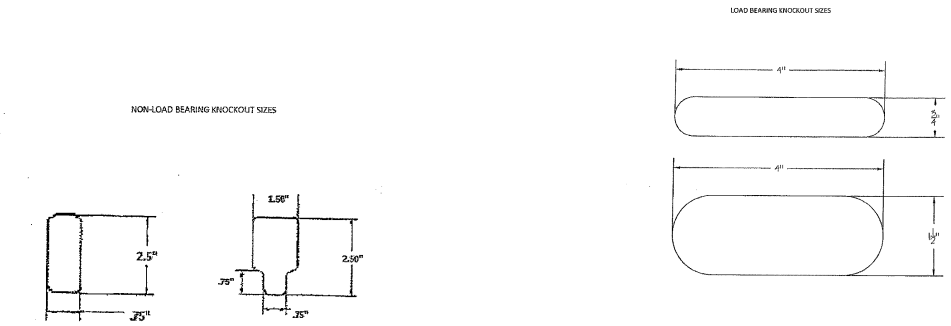


**FIGURE 2—PUNCHOUTS**

**DIVISION: 05 00 00—METALS**
**Section: 05 40 00—Cold-Formed Metal Framing**
**Section: 05 41 00—Structural Metal Stud Framing**

**DIVISION: 09 00 00—FINISHES**
**Section: 09 22 16.13—Non-Structural Metal Stud Framing**

**REPORT HOLDER:**

**TELLING INDUSTRIES**

**EVALUATION SUBJECT:**

**METAL FRAMING**

## 1.0 REPORT PURPOSE AND SCOPE

**Purpose:**

The purpose of this evaluation report supplement is to indicate that the metal framing members, recognized in ICC-ES master report ESR-2281, have also been evaluated for compliance with the codes noted below.

**Applicable code editions:**

- 2017 *Florida Building Code—Building*
- 2017 *Florida Building Code—Residential*

## 2.0 CONCLUSIONS

The metal framing members, described in Sections 2.0 through 7.0 of the master evaluation report ESR-2281, comply with the *Florida Building Code—Building* and the *Florida Building Code—Residential*, provided the design and installation are in accordance with the *International Building Code®* provisions noted in the master report.

Use of the metal framing members for compliance with the High-Velocity Hurricane Zone provisions of the *Florida Building Code—Building* and the *Florida Building Code—Residential* is outside the scope of this report.

For products falling under Florida Rule 9N-3, verification that the report holder's quality assurance program is audited by a quality assurance entity approved by the Florida Building Commission for the type of inspections being conducted is the responsibility of an approved validation entity (or the code official, when the report holder does not possess an approval by the Commission).

This supplement expires concurrently with the evaluation report, reissued December 2019.

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