

1909

Inland Steel Company

Chicago

Open Hearth Steel Products

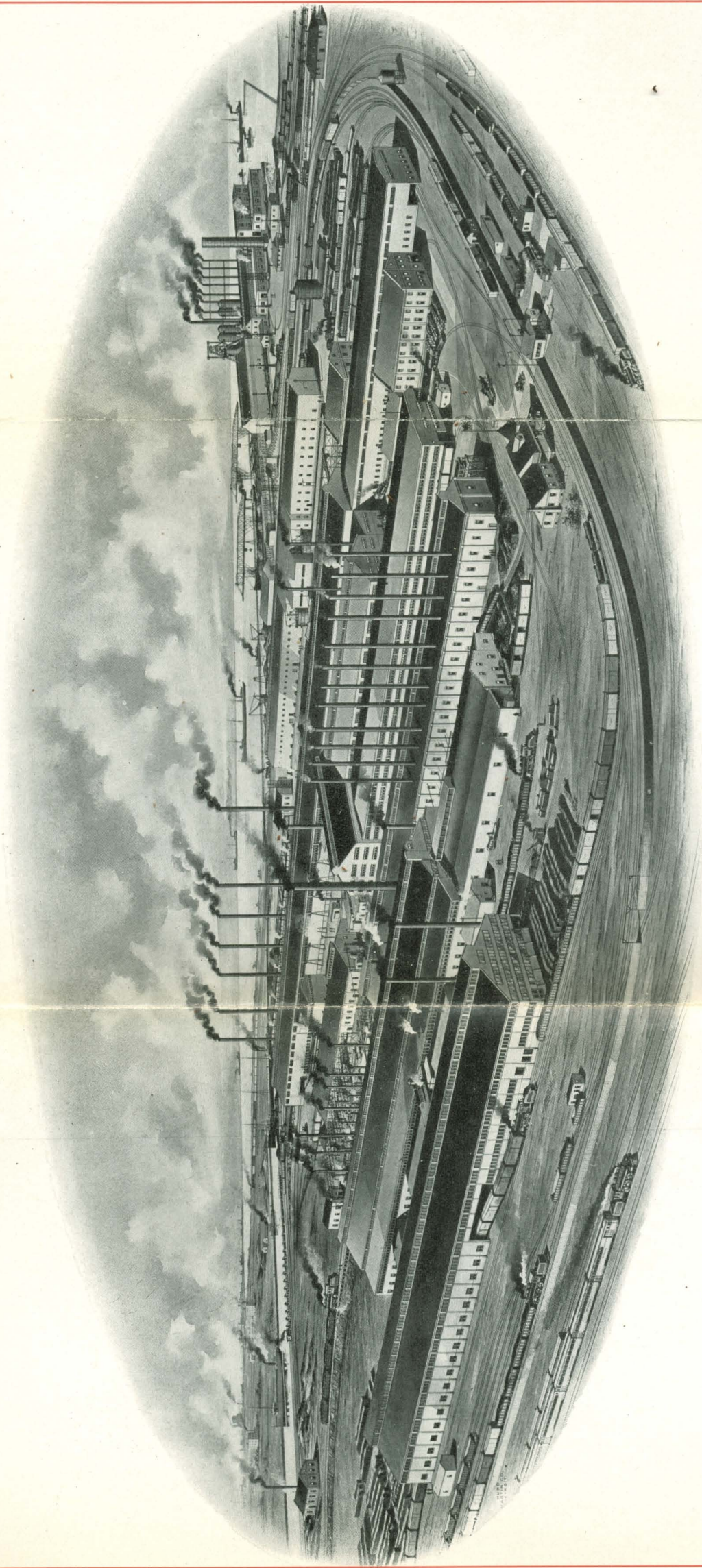
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Indiana Harbor Works

B221

Inland Steel

Billets

Bars

Structural and

Special Shapes

Sheets

Indiana Harbor Works

Inland Steel Company

First National Bank Bldg.

Chicago

Inland Steel Company

First National Bank Building

Chicago

Works : Indiana Harbor, Indiana
Chicago Heights, Illinois

Our Products :

Open Hearth

Blooms
Billets
Slabs
Structural Angles
 " Channels
 " I Beams
Universal Plates
Merchant Bars
Spring Steel
Axle Steel
Plates
Black Sheets
Electrical Sheets
Deep Stamping Sheets
Galvanized Sheets
Corrugated Sheets
Roofing and Siding

Rail Carbon Bessemer

Bars
Angles
Channels
Special Sections
Agricultural Sections
Harrow Teeth
Cross Arm Braces
Pole Steps

B221

From the ore up

OUR INDIANA HARBOR WORKS is a complete, self-contained steel industry, independent of all outside influence in the supply of its raw materials.

Inland Open Hearth Steel is produced complete from the ore up to the finished shapes, in this one economically arranged, modernly equipped plant, under one management.

We own our own mines and have unequalled facilities for securing and handling the necessary supply of scrap material.

A plant of this kind is more flexible in meeting its customers' requirements than is possible with mills that are widely separated, diversely controlled links in a chain, no matter how large that chain may be.

Terms

All sales are made for cash unless otherwise agreed upon.

Invoices are payable at our office and no exchange will be allowed.

Interest will be charged on all overdue accounts.

Statements will be rendered the first of every month of all open accounts. They should be checked upon receipt, and any errors or omissions immediately reported.

All material herein listed is sold F. O. B. our works, Indiana Harbor, Ind., and regular Chicago rates of freight guaranteed.

Our responsibility for safe delivery of material ceases after delivery in good order to Transportation Company when properly consigned to purchaser.

All sales made subject to delays caused by strikes, fires, accidents, manufacturing contingencies or other causes beyond our control.

Defective material will be replaced free of cost, but no claim for labor, damage, freight, etc., will be allowed.

All claims must be made promptly after receipt of material.

Weights and dimensions given are approximately correct, but are not guaranteed.

All prices and quotations are subject to change without notice.

Sizes we roll

THE sizes and sections shown in the following pages are those that we roll regularly. But we are constantly adding to our equipment and widening the limits of sizes rolled.

Furthermore, we make a strong feature of producing special sizes, shapes and analysis to meet special requirements, and we are justly proud of the business that we have earned in this way.

This book describes only the products of our works at Indiana Harbor, Indiana—our Open Hearth plant. It will be a pleasure to supply you also with a hand-book relating to the Bessemer product of our works at Chicago Heights, Illinois.

Notes about Structural Material

Our I Beams, Channels and Angles are of the usual American Standard.

Flanges of both standard I Beams and Channels have a uniform slope of $16\frac{2}{3}\%$, equivalent to 2 inches per foot.

The colored illustrations of the various sections show the dimensions of the minimum or standard size. The increase in the area is indicated by an outer line.

For I Beams and Channels, the enlargement of the section adds an equal amount to the thickness of both the web and the width of the flanges. All other dimensions remain unchanged.

For Angles, the enlargement of the section (by separating the rolls) slightly increases the length of the legs.

I Beams and Channels should be ordered to weights given in the tables. Any weights ordered other than those shown will be furnished and charged for at the next higher weight.

Angles are rolled only to the variation in thickness and weight given in the table.

In ordering designate either the weight or thickness wanted, but not both.

All shapes have an allowable variation of $2\frac{1}{2}\%$ per cent either way from the nominal weight of the section.

All shapes will be cut to lengths, the extreme variation not exceeding $\frac{3}{4}$ inch unless otherwise arranged.

Open Hearth Steel

Billets, Blooms, Slabs

Sizes we roll

| Width Inches | Thickness Inches | Width Inches | Thickness Inches |
|-----------------|------------------------------------|------------------|---------------------|
| 4 | 4 | 10 | 2 to 10 |
| 4 $\frac{1}{4}$ | 4 | 10 $\frac{1}{4}$ | 2 " 10 |
| 4 $\frac{1}{2}$ | 3 $\frac{1}{2}$ to 4 $\frac{1}{2}$ | 10 $\frac{1}{2}$ | 2 " 10 |
| 4 $\frac{3}{4}$ | 3 $\frac{1}{2}$ " 4 $\frac{3}{4}$ | 10 $\frac{3}{4}$ | 2 " 10 |
| 5 | 3 " 5 | 11 | 2 " 10 |
| 5 $\frac{1}{4}$ | 3 " 5 $\frac{1}{4}$ | 11 $\frac{1}{4}$ | 2 " 10 |
| 5 $\frac{1}{2}$ | 3 " 5 $\frac{1}{2}$ | 11 $\frac{1}{2}$ | 2 " 9 |
| 5 $\frac{3}{4}$ | 3 " 5 $\frac{3}{4}$ | 11 $\frac{3}{4}$ | 2 " 9 |
| 6 | 3 " 6 | 12 | 2 " 8 |
| 6 $\frac{1}{4}$ | 3 " 6 $\frac{1}{4}$ | 12 $\frac{1}{4}$ | 2 " 8 |
| 6 $\frac{1}{2}$ | 3 " 6 $\frac{1}{2}$ | 12 $\frac{1}{2}$ | 2 " 8 |
| 6 $\frac{3}{4}$ | 2 $\frac{1}{2}$ " 6 $\frac{3}{4}$ | 12 $\frac{3}{4}$ | 2 " 8 |
| 7 | 2 $\frac{1}{2}$ " 7 | 13 | 2 " 8 |
| 7 $\frac{1}{4}$ | 2 $\frac{1}{2}$ " 7 $\frac{1}{4}$ | 13 $\frac{1}{4}$ | 2 " 8 |
| 7 $\frac{1}{2}$ | 2 $\frac{1}{2}$ " 7 $\frac{1}{2}$ | 13 $\frac{1}{2}$ | 2 " 8 |
| 7 $\frac{3}{4}$ | 2 $\frac{1}{2}$ " 7 $\frac{3}{4}$ | 13 $\frac{3}{4}$ | 2 " 8 |
| 8 | 2 " 8 | 14 | 2 " 8 |
| 8 $\frac{1}{4}$ | 2 " 8 $\frac{1}{4}$ | 14 $\frac{1}{4}$ | 2 " 8 |
| 8 $\frac{1}{2}$ | 2 " 8 $\frac{1}{2}$ | 14 $\frac{1}{2}$ | 2 " 8 |
| 8 $\frac{3}{4}$ | 2 " 8 $\frac{3}{4}$ | 14 $\frac{3}{4}$ | 2 " 8 |
| 9 | 2 " 9 | 15 | 2 " 8 |
| 9 $\frac{1}{4}$ | 2 " 9 $\frac{1}{4}$ | 15 $\frac{1}{4}$ | 2 " 8 |
| 9 $\frac{1}{2}$ | 2 " 9 $\frac{1}{2}$ | 15 $\frac{1}{2}$ | 2 " 8 |
| 9 $\frac{3}{4}$ | 2 " 9 $\frac{3}{4}$ | 15 $\frac{3}{4}$ | 2 " 8 |
| | | 16 | 2 " 8 |

Sizes advance by $\frac{1}{4}$ inches. For weights, estimate a cubic foot of steel at 489 lbs.

We pay particular attention to Forging Billets—any desired carbon—and are prepared to furnish Axle Billets to standard M. C. B. or special specifications.

Open Hearth Steel I Beams

Sizes we roll

| Depth of beam inches | Weight per foot pounds | Width of flange inches | Width of flange fractional | Thickness of web inches | Thickness of web fractional |
|----------------------------|------------------------------|------------------------------|------------------------------------|-------------------------------|-----------------------------------|
| 5 | 9.75 | 3.000 | 3 | 0.210 | $\frac{13}{64}$ |
| | 12.25 | 3.147 | $3\frac{9}{64}$ | 0.357 | $\frac{11}{32}$ |
| | 14.75 | 3.294 | $3\frac{19}{64}$ | 0.504 | $\frac{1}{2}$ |
| | *16.00 | 3.224 | $3\frac{7}{32}$ | 0.318 | $\frac{5}{16}$ |
| | *17.00 | 3.286 | $3\frac{9}{32}$ | 0.380 | $\frac{3}{8}$ |
| 6 | 12.25 | 3.330 | $3\frac{21}{64}$ | 0.230 | $\frac{15}{64}$ |
| | 14.75 | 3.452 | $3\frac{29}{64}$ | 0.352 | $\frac{23}{64}$ |
| | 17.25 | 3.575 | $3\frac{37}{64}$ | 0.475 | $\frac{31}{64}$ |
| | *23.90 | 4.65 | $4\frac{21}{32}$ | 0.375 | $\frac{3}{8}$ |
| 7 | 15.00 | 3.660 | $3\frac{21}{32}$ | 0.250 | $\frac{1}{4}$ |
| | 17.50 | 3.763 | $3\frac{49}{64}$ | 0.352 | $\frac{23}{64}$ |
| | 20.00 | 3.868 | $3\frac{7}{8}$ | 0.458 | $\frac{15}{32}$ |
| 8 | 18.00 | 4.000 | 4 | 0.270 | $\frac{17}{64}$ |
| | 20.50 | 4.087 | $4\frac{3}{32}$ | 0.357 | $\frac{23}{64}$ |
| | 23.00 | 4.179 | $4\frac{11}{64}$ | 0.449 | $\frac{7}{16}$ |
| | 25.50 | 4.271 | $4\frac{17}{64}$ | 0.541 | $\frac{17}{32}$ |

Standard Sections shown in bold-face figures.

*Sizes marked with * are special.

For details of weights, flange widths and web thicknesses see tables and diagrams on pages 25 to 30.

Open Hearth Steel Channels

Sizes we roll

| Depth inches | Weight per foot pounds | Width—inches | | Thickness of web | |
|-----------------|------------------------------|-----------------------------|----------------------|-----------------------------|----------------------|
| | | Inches and decimal parts | Nearest 64th inch | Inches and decimal parts | Nearest 64th inch |
| 2 | *5 | 1.375 | $1\frac{3}{8}$ | 0.344 | $\frac{11}{32}$ |
| | *5.64 | 1.469 | $1\frac{15}{32}$ | 0.438 | $\frac{7}{16}$ |
| | *6 | 1.375 | $1\frac{3}{8}$ | 0.5 | $\frac{1}{2}$ |
| 3 | *6.47 | 1.937 | $1\frac{15}{16}$ | 0.312 | $\frac{5}{16}$ |
| | *7.10 | 2.000 | 2 | 0.375 | $\frac{3}{8}$ |
| 5 | 6.5 | 1.75 | $1\frac{3}{4}$ | 0.19 | $\frac{3}{16}$ |
| | 9.0 | 1.89 | $1\frac{57}{64}$ | 0.33 | $\frac{21}{64}$ |
| | 11.5 | 2.04 | $2\frac{3}{64}$ | 0.48 | $\frac{31}{64}$ |
| 6 | 8.0 | 1.92 | $1\frac{59}{64}$ | 0.20 | $\frac{13}{64}$ |
| | 10.5 | 2.04 | $2\frac{3}{64}$ | 0.32 | $\frac{21}{64}$ |
| | 13.0 | 2.17 | $2\frac{11}{64}$ | 0.45 | $\frac{29}{64}$ |
| | 15.5 | 2.29 | $2\frac{19}{64}$ | 0.57 | $\frac{37}{64}$ |
| | *15.0 | 3.50 | $3\frac{1}{2}$ | 0.35 | $\frac{11}{32}$ |
| 7 | 9.75 | 2.09 | $2\frac{3}{32}$ | 0.21 | $\frac{7}{32}$ |
| | 12.25 | 2.20 | $2\frac{13}{64}$ | 0.32 | $\frac{21}{64}$ |
| | 13.60 | 2.25 | $2\frac{1}{4}$ | 0.36 | $\frac{3}{8}$ |
| | *13.60 | 2.78 | $2\frac{25}{32}$ | 0.28 | $\frac{9}{32}$ |
| | 14.75 | 2.30 | $2\frac{19}{64}$ | 0.42 | $\frac{27}{64}$ |
| | *16.50 | 2.90 | $2\frac{29}{32}$ | 0.40 | $\frac{13}{32}$ |
| | 17.25 | 2.41 | $2\frac{13}{32}$ | 0.53 | $\frac{17}{32}$ |
| | *18.50 | 2.98 | $2\frac{63}{64}$ | 0.48 | $\frac{31}{64}$ |
| 19.75 | 2.51 | $2\frac{23}{64}$ | 0.64 | $\frac{41}{64}$ | |

Standard Sections shown in bold-face figures.

*Sizes marked with * are special.

For details of weights, flange widths and web thicknesses see tables and diagrams on pages 32 to 39.

Open Hearth Steel

Channels

Continued

Sizes we roll

| Depth inches | Weight per foot pounds | Width—inches | | Thickness of web | |
|-----------------|------------------------------|--------------|-------------------------------------|-------------------|-------------------------|
| | | Decimal | Nearest 64th inch | Inches decimal | Nearest 64th inch |
| 8 | 11.25 | 2.26 | 2¹⁷/₆₄ | 0.22 | 7/₃₂ |
| | 13.75 | 2.35 | 2 ²³ / ₆₄ | 0.31 | 5/ ₁₆ |
| | 16.25 | 2.45 | 2 ²⁹ / ₆₄ | 0.40 | 13/ ₃₂ |
| | 18.75 | 2.54 | 2 ³⁵ / ₆₄ | 0.49 | 1/ ₂ |
| | 21.25 | 2.63 | 2 ⁴¹ / ₆₄ | 0.59 | 19/ ₃₂ |
| 9 | 13.25 | 2.430 | 2⁷/₁₆ | 0.23 | 15/₆₄ |
| | 15.00 | 2.488 | 2 ³¹ / ₆₄ | 0.288 | 9/ ₃₂ |
| | 20.00 | 2.652 | 2 ²¹ / ₃₂ | 0.452 | 29/ ₆₄ |
| | 25.00 | 2.815 | 2 ¹³ / ₁₆ | 0.615 | 39/ ₆₄ |
| 10 | 15. | 2.60 | 2³⁹/₆₄ | 0.24 | 15/₆₄ |
| | 20. | 2.74 | 2 ³ / ₄ | 0.38 | 3/ ₈ |
| | 25. | 2.88 | 2 ⁷ / ₈ | 0.52 | 17/ ₃₂ |
| | 30. | 3.03 | 3 ¹ / ₃₂ | 0.67 | 43/ ₆₄ |
| | 35. | 3.18 | 3 ³ / ₁₆ | 0.82 | 53/ ₆₄ |
| 12 | 20.5 | 2.94 | 2¹⁵/₁₆ | 0.28 | 9/₃₂ |
| | 25.0 | 3.05 | 3 ³ / ₆₄ | 0.39 | 25/ ₆₄ |
| | 30.0 | 3.17 | 3 ¹¹ / ₆₄ | 0.51 | 33/ ₆₄ |
| | 35.0 | 3.29 | 3 ¹⁹ / ₆₄ | 0.63 | 41/ ₆₄ |
| | *35. | 3.76 | 3 ⁴⁹ / ₆₄ | 0.47 | 15/ ₃₂ |
| | 40.0 | 3.42 | 3 ²⁷ / ₆₄ | 0.76 | 49/ ₆₄ |
| | *40. | 3.89 | 3 ⁵⁷ / ₆₄ | 0.59 | 19/ ₃₂ |
| | *44.3 | 4.00 | 4 | 0.70 | 45/ ₆₄ |
| | *48. | 4.07 | 4 ⁵ / ₆₄ | 0.78 | 25/ ₃₂ |
| 13 | *32.0 | 4.00 | 4 | 0.38 | 3/ ₈ |
| | *35.0 | 4.07 | 4 ⁵ / ₆₄ | 0.45 | 29/ ₆₄ |
| | *37.0 | 4.125 | 4 ¹ / ₈ | 0.50 | 1/ ₂ |
| | *40.0 | 4.18 | 4 ³ / ₁₆ | 0.56 | 9/ ₁₆ |
| | *50.0 | 4.42 | 4 ²⁷ / ₆₄ | 0.79 | 51/ ₆₄ |

Standard Sections shown in bold-face figures.

*Sizes marked with * are special.

For details of weights, flange widths and web thicknesses see tables and diagrams on pages 40 to 45.

Open Hearth Steel Channel Arch Bars

Sizes we roll

| Depth inches | Weight per foot pounds | Width—inches | | Thickness of web | |
|-----------------|------------------------------|--------------|----------------------|-------------------|----------------------|
| | | Decimal | Nearest 64th inch | Inches decimal | Nearest 64th inch |
| 4½ | 13.8 | 1.375 | 1⅜ | 0.500 | ½ |
| | 15.7 | 1.500 | 1½ | 0.625 | ⅝ |
| | 17.6 | 1.625 | 1⅝ | 0.750 | ¾ |
| | 19.5 | 1.750 | 1¾ | 0.875 | ⅞ |
| | 21.5 | 1.875 | 1⅞ | 1.000 | 1 |
| | 23.4 | 2.000 | 2 | 1.125 | 1⅛ |
| 5 | 14.6 | 1.375 | 1⅜ | 0.500 | ½ |
| | 16.7 | 1.500 | 1½ | 0.625 | ⅝ |
| | 18.9 | 1.625 | 1⅝ | 0.750 | ¾ |
| | 21.0 | 1.750 | 1¾ | 0.875 | ⅞ |
| | 23.1 | 1.875 | 1⅞ | 1.000 | 1 |
| | 25.2 | 2.000 | 2 | 1.125 | 1⅛ |

Standard Sections shown in bold-face figures.

For details of weights, flange widths and web thicknesses see tables and diagrams on pages 46 and 47.

Open Hearth Steel Universal Plates

Sizes we roll

| Width inches | Range of thickness by inches | Width inches | Range of thickness by inches |
|--------------------|---------------------------------|--------------------|---------------------------------|
| 6 | x $\frac{1}{4}$ to 2 | 12 $\frac{1}{4}$ x | $\frac{1}{4}$ to 2 |
| 6 $\frac{1}{4}$ x | “ | 12 $\frac{1}{2}$ x | “ |
| 6 $\frac{1}{2}$ x | “ | 12 $\frac{3}{4}$ x | “ |
| 6 $\frac{3}{4}$ x | “ | 13 x | “ |
| 7 x | “ | 13 $\frac{1}{4}$ x | “ |
| 7 $\frac{1}{4}$ x | “ | 13 $\frac{1}{2}$ x | “ |
| 7 $\frac{1}{2}$ x | “ | 13 $\frac{3}{4}$ x | “ |
| 7 $\frac{3}{4}$ x | “ | 14 x | “ |
| 8 x | “ | 14 $\frac{1}{4}$ x | “ |
| 8 $\frac{1}{4}$ x | “ | 14 $\frac{1}{2}$ x | “ |
| 8 $\frac{1}{2}$ x | “ | 14 $\frac{3}{4}$ x | “ |
| 8 $\frac{3}{4}$ x | “ | 15 x | “ |
| 9 x | “ | 15 $\frac{1}{4}$ x | “ |
| 9 $\frac{1}{4}$ x | “ | 15 $\frac{1}{2}$ x | “ |
| 9 $\frac{1}{2}$ x | “ | 15 $\frac{3}{4}$ x | “ |
| 9 $\frac{3}{4}$ x | “ | 16 x | “ |
| 10 x | “ | 16 $\frac{1}{4}$ x | “ |
| 10 $\frac{1}{4}$ x | “ | 16 $\frac{1}{2}$ x | “ |
| 10 $\frac{1}{2}$ x | “ | 16 $\frac{3}{4}$ x | “ |
| 10 $\frac{3}{4}$ x | “ | 17 x | “ |
| 11 x | “ | 17 $\frac{1}{4}$ x | “ |
| 11 $\frac{1}{4}$ x | “ | 17 $\frac{1}{2}$ x | “ |
| 11 $\frac{1}{2}$ x | “ | 17 $\frac{3}{4}$ x | “ |
| 11 $\frac{3}{4}$ x | “ | 18 x | “ |
| 12 x | “ | | |

See tables of weights on pages 85 to 89 inclusive.

Open Hearth Steel Angles

Sizes we roll

| Size in inches | Weight per foot pounds | Size in inches | Weight per foot pounds |
|---|------------------------|--|------------------------|
| $\frac{3}{4} \times \frac{3}{4} \times \frac{1}{8}$ | 0.6 | $2\frac{1}{4} \times 2\frac{1}{4} \times \frac{5}{16}$ | 4.5 |
| $\quad \quad \quad \times \frac{3}{16}$ | 0.9 | $\quad \quad \quad \times \frac{3}{8}$ | 5.3 |
| 1 x 1 x $\frac{1}{8}$ | 0.8 | $\quad \quad \quad \times \frac{7}{16}$ | 6.1 |
| $\quad \quad \quad \times \frac{3}{16}$ | 1.2 | $\quad \quad \quad \times \frac{1}{2}$ | 6.8 |
| $\quad \quad \quad \times \frac{1}{4}$ | 1.5 | $2\frac{1}{2} \times 2 \times \frac{1}{8}$ | 1.9 |
| $1\frac{1}{4} \times 1\frac{1}{4} \times \frac{1}{8}$ | 1.1 | $\quad \quad \quad \times \frac{3}{16}$ | 2.8 |
| $\quad \quad \quad \times \frac{3}{16}$ | 1.5 | $\quad \quad \quad \times \frac{1}{4}$ | 3.7 |
| $\quad \quad \quad \times \frac{1}{4}$ | 2.0 | $\quad \quad \quad \times \frac{5}{16}$ | 4.5 |
| $\quad \quad \quad \times \frac{5}{16}$ | 2.4 | $\quad \quad \quad \times \frac{3}{8}$ | 5.3 |
| $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{8}$ | 1.3 | $\quad \quad \quad \times \frac{7}{16}$ | 6.1 |
| $\quad \quad \quad \times \frac{3}{16}$ | 1.8 | $\quad \quad \quad \times \frac{1}{2}$ | 6.8 |
| $\quad \quad \quad \times \frac{1}{4}$ | 2.4 | $2\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{8}$ | 2.1 |
| $\quad \quad \quad \times \frac{5}{16}$ | 2.9 | $\quad \quad \quad \times \frac{3}{16}$ | 3.1 |
| $\quad \quad \quad \times \frac{3}{8}$ | 3.4 | $\quad \quad \quad \times \frac{1}{4}$ | 4.1 |
| $1\frac{3}{4} \times 1\frac{3}{4} \times \frac{1}{8}$ | 1.4 | $\quad \quad \quad \times \frac{5}{16}$ | 5.0 |
| $\quad \quad \quad \times \frac{3}{16}$ | 2.2 | $\quad \quad \quad \times \frac{3}{8}$ | 5.9 |
| $\quad \quad \quad \times \frac{1}{4}$ | 2.8 | $\quad \quad \quad \times \frac{7}{16}$ | 6.8 |
| $\quad \quad \quad \times \frac{5}{16}$ | 3.4 | $\quad \quad \quad \times \frac{1}{2}$ | 7.7 |
| $\quad \quad \quad \times \frac{3}{8}$ | 4.0 | 3 x 2 x $\frac{1}{4}$ | 4.0 |
| $\quad \quad \quad \times \frac{7}{16}$ | 4.6 | $\quad \quad \quad \times \frac{5}{16}$ | 5.0 |
| 2 x 1 $\frac{1}{2} \times \frac{1}{8}$ | 1.4 | $\quad \quad \quad \times \frac{3}{8}$ | 5.9 |
| $\quad \quad \quad \times \frac{3}{16}$ | 2.1 | $\quad \quad \quad \times \frac{7}{16}$ | 6.8 |
| $\quad \quad \quad \times \frac{1}{4}$ | 2.8 | $\quad \quad \quad \times \frac{1}{2}$ | 7.7 |
| $\quad \quad \quad \times \frac{5}{16}$ | 3.4 | 3 x 3 x $\frac{3}{16}$ | 3.7 |
| 2 x 2 x $\frac{1}{8}$ | 1.7 | $\quad \quad \quad \times \frac{1}{4}$ | 4.9 |
| $\quad \quad \quad \times \frac{3}{16}$ | 2.5 | $\quad \quad \quad \times \frac{5}{16}$ | 6.1 |
| $\quad \quad \quad \times \frac{1}{4}$ | 3.2 | $\quad \quad \quad \times \frac{3}{8}$ | 7.2 |
| $\quad \quad \quad \times \frac{5}{16}$ | 4.0 | $\quad \quad \quad \times \frac{7}{16}$ | 8.3 |
| $\quad \quad \quad \times \frac{3}{8}$ | 4.7 | $\quad \quad \quad \times \frac{1}{2}$ | 9.4 |
| $\quad \quad \quad \times \frac{7}{16}$ | 5.3 | $3\frac{1}{4} \times 2 \times \frac{1}{4}$ | 4.3 |
| $2\frac{1}{4} \times 2\frac{1}{4} \times \frac{1}{8}$ | 1.9 | $\quad \quad \quad \times \frac{5}{16}$ | 5.3 |
| $\quad \quad \quad \times \frac{3}{16}$ | 2.8 | $\quad \quad \quad \times \frac{3}{8}$ | 6.3 |
| $\quad \quad \quad \times \frac{1}{4}$ | 3.7 | $\quad \quad \quad \times \frac{7}{16}$ | 7.2 |
| | | $\quad \quad \quad \times \frac{1}{2}$ | 8.1 |
| | | $\quad \quad \quad \times \frac{9}{16}$ | 9.0 |

See pages 48 to 52 for illustrations and details of the above sizes.

Open Hearth Steel

Angles

Continued

Sizes we roll

| Size in inches | Weight per foot pounds | Size in inches | Weight per foot pounds | |
|----------------|------------------------|----------------|------------------------|--------|
| 3 1/2 x 2 1/2 | x 1/4 | 4 x 3 | x 5/8 | |
| | x 5/16 | | x 11/16 | |
| | x 3/8 | | x 3/4 | |
| | x 7/16 | | x 13/16 | |
| | x 1/2 | | 4 x 4 | x 5/16 |
| | x 9/16 | | | x 3/8 |
| | x 5/8 | | | x 7/16 |
| | x 11/16 | | | x 1/2 |
| 3 1/2 x 3 | x 5/16 | x 9/16 | | |
| | x 3/8 | x 5/8 | | |
| | x 7/16 | x 11/16 | | |
| | x 1/2 | x 3/4 | | |
| | x 9/16 | x 13/16 | | |
| | x 5/8 | 5 x 3 | x 5/16 | |
| | x 11/16 | | x 3/8 | |
| | x 3/4 | | x 7/16 | |
| x 13/16 | x 1/2 | | | |
| 3 1/2 x 3 1/2 | x 5/16 | | x 9/16 | |
| | x 3/8 | | x 5/8 | |
| | x 7/16 | x 11/16 | | |
| | x 1/2 | x 3/4 | | |
| | x 9/16 | x 13/16 | | |
| | x 5/8 | 5 x 3 1/2 | x 5/16 | |
| | x 11/16 | | x 3/8 | |
| | x 3/4 | | x 7/16 | |
| x 13/16 | x 1/2 | | | |
| 4 x 3 | x 5/16 | | x 9/16 | |
| | x 3/8 | | x 5/8 | |
| | x 7/16 | x 11/16 | | |
| | x 1/2 | x 3/4 | | |
| | x 9/16 | x 13/16 | | |
| | x 7/8 | | | |

See pages 53 to 58 for illustrations and details of above sizes.

Open Hearth Steel

Angles

Continued

Sizes we roll

| Size in inches | | | Weight per foot pounds | Size in inches | | | Weight per foot pounds | | | | |
|-------------------|------|-------------------|------------------------|-------------------|------------------|-------------------|------------------------|-------------------|------|-------------------|------|
| 5 | x5 | x $\frac{3}{8}$ | 12.3 | 6 | x4 | x $\frac{11}{16}$ | 21.8 | | | | |
| | | x $\frac{1}{2}$ | 14.3 | | | x $\frac{3}{4}$ | 23.6 | | | | |
| | | x $\frac{9}{16}$ | 16.2 | | | x $\frac{13}{16}$ | 25.4 | | | | |
| | | x $\frac{5}{8}$ | 18.1 | | | x $\frac{7}{8}$ | 27.2 | | | | |
| | | x $\frac{11}{16}$ | 20.0 | | | x $\frac{15}{16}$ | 28.9 | | | | |
| | | x $\frac{3}{4}$ | 21.8 | | | x1 | 30.6 | | | | |
| | | x $\frac{13}{16}$ | 23.6 | | | 6 | x6 | x $\frac{3}{8}$ | 14.8 | | |
| | | x $\frac{7}{8}$ | 25.4 | | | | | x $\frac{7}{16}$ | 17.2 | | |
| | | x $\frac{15}{16}$ | 27.2 | | | | | x $\frac{1}{2}$ | 19.6 | | |
| | | x1 | 28.9 | | | | | x $\frac{9}{16}$ | 21.9 | | |
| | | 6 | x3 $\frac{1}{2}$ | | | | | x $\frac{3}{8}$ | 11.7 | x $\frac{5}{8}$ | 24.2 |
| | | | | | | | | x $\frac{7}{16}$ | 13.5 | x $\frac{11}{16}$ | 26.5 |
| x $\frac{1}{2}$ | 15.3 | | | x $\frac{3}{4}$ | 28.7 | | | | | | |
| x $\frac{9}{16}$ | 17.1 | | | x $\frac{13}{16}$ | 30.9 | | | | | | |
| x $\frac{5}{8}$ | 18.9 | | | x $\frac{7}{8}$ | 33.1 | | | | | | |
| x $\frac{11}{16}$ | 20.6 | | | x $\frac{15}{16}$ | 35.3 | | | | | | |
| x $\frac{3}{4}$ | 22.3 | | | x1 | 37.4 | | | | | | |
| x $\frac{13}{16}$ | 24.0 | | | 7 | x3 $\frac{1}{2}$ | | | x $\frac{7}{16}$ | 15.0 | | |
| x $\frac{7}{8}$ | 25.7 | | | | | x $\frac{1}{2}$ | 17.0 | | | | |
| x $\frac{15}{16}$ | 27.3 | | | | | x $\frac{9}{16}$ | 19.0 | | | | |
| x1 | 28.9 | | | | | x $\frac{5}{8}$ | 21.0 | | | | |
| 6 | x4 | | | | | x $\frac{3}{8}$ | 12.3 | x $\frac{11}{16}$ | 23.0 | | |
| | | x $\frac{7}{16}$ | 14.3 | | | x $\frac{3}{4}$ | 24.9 | | | | |
| | | x $\frac{1}{2}$ | 16.2 | | | x $\frac{13}{16}$ | 26.8 | | | | |
| | | x $\frac{9}{16}$ | 18.1 | | | x $\frac{7}{8}$ | 28.7 | | | | |
| | | x $\frac{5}{8}$ | 20.0 | | | x $\frac{15}{16}$ | 30.5 | | | | |
| | | | | | | | x1 | 32.3 | | | |

See pages 59 to 63 for illustrations and details of the above sizes.

Open Hearth Steel Square Bars

Sizes we roll

| Thickness in inches | Weight per foot pounds | Thickness in inches | Weight per foot pounds |
|------------------------|---------------------------|------------------------|---------------------------|
| $\frac{5}{16}$ | .332 | $1\frac{3}{8}$ | 6.428 |
| $\frac{3}{8}$ | .478 | $1\frac{7}{16}$ | 7.026 |
| $\frac{7}{16}$ | .651 | $1\frac{1}{2}$ | 7.650 |
| $\frac{1}{2}$ | .850 | $1\frac{9}{16}$ | 8.301 |
| $\frac{9}{16}$ | 1.076 | $1\frac{5}{8}$ | 8.978 |
| $\frac{5}{8}$ | 1.328 | $1\frac{11}{16}$ | 9.682 |
| $\frac{11}{16}$ | 1.608 | $1\frac{3}{4}$ | 10.410 |
| $\frac{3}{4}$ | 1.913 | $1\frac{7}{8}$ | 11.961 |
| $\frac{13}{16}$ | 2.245 | 2 | 13.60 |
| $\frac{7}{8}$ | 2.603 | $2\frac{1}{4}$ | 17.22 |
| $\frac{15}{16}$ | 2.989 | $2\frac{1}{2}$ | 21.25 |
| 1 | 3.400 | $2\frac{3}{4}$ | 25.71 |
| $1\frac{1}{16}$ | 3.838 | 3 | 30.60 |
| $1\frac{1}{8}$ | 4.303 | $3\frac{1}{4}$ | 35.92 |
| $1\frac{3}{16}$ | 4.795 | $3\frac{1}{2}$ | 41.65 |
| $1\frac{1}{4}$ | 5.312 | $3\frac{3}{4}$ | 47.82 |
| $1\frac{5}{16}$ | 5.857 | 4 | 54.40 |

See pages 90 to 93 for complete tables of sizes
weights and areas.

Open Hearth Steel Round Bars

Sizes we roll

| Diameter in inches | Weight per foot pounds | Diameter in inches | Weight per foot pounds |
|-----------------------|---------------------------|-----------------------|---------------------------|
| $23\frac{3}{8}$ | .345 | $1\frac{3}{8}$ | 5.049 |
| $3\frac{3}{8}$ | .375 | $1\frac{7}{16}$ | 5.518 |
| $25\frac{3}{8}$ | .407 | $1\frac{1}{2}$ | 6.008 |
| $13\frac{3}{8}$ | .441 | $1\frac{9}{16}$ | 6.520 |
| $27\frac{3}{8}$ | .475 | $1\frac{5}{8}$ | 7.051 |
| $7\frac{3}{8}$ | .511 | $1\frac{11}{16}$ | 7.604 |
| $29\frac{3}{8}$ | .548 | $1\frac{3}{4}$ | 8.178 |
| $15\frac{3}{8}$ | .587 | $1\frac{13}{16}$ | 8.773 |
| $31\frac{3}{8}$ | .627 | $1\frac{7}{8}$ | 9.388 |
| $1\frac{1}{2}$ | .667 | $1\frac{15}{16}$ | 10.02 |
| $33\frac{3}{8}$ | .710 | 2 | 10.68 |
| $17\frac{3}{8}$ | .754 | $2\frac{1}{16}$ | 11.36 |
| $35\frac{3}{8}$ | .799 | $2\frac{1}{8}$ | 12.06 |
| $9\frac{3}{8}$ | .845 | $2\frac{3}{16}$ | 12.78 |
| $37\frac{3}{8}$ | .893 | $2\frac{1}{4}$ | 13.52 |
| $19\frac{3}{8}$ | .941 | $2\frac{5}{16}$ | 14.28 |
| $39\frac{3}{8}$ | .992 | $2\frac{3}{8}$ | 15.07 |
| $5\frac{3}{8}$ | 1.043 | $2\frac{7}{16}$ | 15.86 |
| $41\frac{3}{8}$ | 1.096 | $2\frac{1}{2}$ | 16.69 |
| $21\frac{3}{8}$ | 1.150 | $2\frac{9}{16}$ | 17.53 |
| $43\frac{3}{8}$ | 1.205 | $2\frac{5}{8}$ | 18.40 |
| $11\frac{3}{8}$ | 1.262 | $2\frac{11}{16}$ | 19.29 |
| $45\frac{3}{8}$ | 1.320 | $2\frac{3}{4}$ | 20.20 |
| $23\frac{3}{8}$ | 1.380 | $2\frac{13}{16}$ | 21.12 |
| $47\frac{3}{8}$ | 1.440 | $2\frac{7}{8}$ | 22.07 |
| $3\frac{3}{4}$ | 1.502 | $2\frac{15}{16}$ | 23.04 |
| $13\frac{3}{4}$ | 1.763 | 3 | 24.03 |
| $27\frac{3}{4}$ | 1.901 | $3\frac{1}{16}$ | 25.04 |
| $7\frac{3}{4}$ | 2.044 | $3\frac{1}{8}$ | 26.08 |
| $15\frac{3}{4}$ | 2.347 | $3\frac{1}{4}$ | 28.20 |
| $31\frac{3}{4}$ | 2.506 | $3\frac{1}{2}$ | 32.71 |
| 1 | 2.670 | $3\frac{3}{4}$ | 37.56 |
| $1\frac{1}{16}$ | 3.014 | 4 | 42.73 |
| $1\frac{1}{8}$ | 3.379 | $4\frac{1}{4}$ | 48.24 |
| $1\frac{3}{16}$ | 3.766 | $4\frac{1}{2}$ | 54.07 |
| $1\frac{1}{4}$ | 4.173 | $4\frac{3}{4}$ | 60.25 |
| $1\frac{5}{16}$ | 4.600 | | |

We roll all of the above sizes 2 inch and larger of a special quality of Open Hearth Steel, suitable for Turned and Drawn Shafting.

See pages 90 to 93 for complete table of sizes, weights, areas, etc.

Open Hearth Steel Flat Merchant Bars

Sizes we roll

| Width inches | Range of thickness | Width inches | Range of thickness |
|------------------|--------------------------------|------------------|-----------------------|
| $\frac{5}{8}$ x | $\frac{1}{8}$ to $\frac{1}{2}$ | $2\frac{1}{2}$ x | $\frac{1}{8}$ to 1 |
| $\frac{3}{4}$ x | " " $\frac{5}{8}$ | $2\frac{3}{4}$ x | " " |
| $\frac{7}{8}$ x | " " $\frac{3}{4}$ | 3 x | $\frac{1}{8}$ to 2 |
| | | $3\frac{1}{4}$ x | " " |
| 1 x | $\frac{1}{8}$ to $\frac{7}{8}$ | $3\frac{1}{2}$ x | " " |
| $1\frac{1}{8}$ x | $\frac{1}{8}$ " 1 | $3\frac{3}{4}$ x | " " |
| $1\frac{1}{4}$ x | " " | 4 x | " " |
| $1\frac{3}{8}$ x | " " | $4\frac{1}{4}$ x | " " |
| $1\frac{1}{2}$ x | " " | $4\frac{1}{2}$ x | " " |
| $1\frac{5}{8}$ x | " " | $4\frac{3}{4}$ x | " " |
| $1\frac{3}{4}$ x | " " | 5 x | $\frac{1}{4}$ to 2 |
| $1\frac{7}{8}$ x | " " | $5\frac{1}{4}$ x | " " |
| | | $5\frac{1}{2}$ x | " " |
| 2 x | $\frac{1}{8}$ to 1 | $5\frac{3}{4}$ x | " " |
| $2\frac{1}{8}$ x | " " | 6 x | " " |
| $2\frac{1}{4}$ x | " " | | |

See table of sizes and weights, pages 83 to 89.

Open Hearth Steel Oval Bars

Sizes we roll

| Width Inches | Range of thickness Inches |
|-----------------|-------------------------------------|
| $\frac{5}{8}$ | x $\frac{5}{16}$ to $\frac{1}{2}$ |
| $\frac{11}{16}$ | x $\frac{11}{32}$ to $\frac{1}{2}$ |
| $\frac{3}{4}$ | x $\frac{5}{16}$ to $\frac{9}{16}$ |
| $\frac{13}{16}$ | x $\frac{11}{32}$ to $\frac{9}{16}$ |
| $\frac{7}{8}$ | x $\frac{5}{16}$ to $\frac{3}{4}$ |
| $\frac{15}{16}$ | x $\frac{25}{32}$ to $\frac{3}{4}$ |
| 1 | x $\frac{3}{8}$ to $\frac{7}{8}$ |
| $1\frac{1}{8}$ | x $\frac{1}{2}$ to $\frac{7}{8}$ |
| $1\frac{1}{4}$ | x $\frac{5}{8}$ to $\frac{7}{8}$ |

Open Hearth Steel Half Oval Bars

Sizes we roll

| Width Inches | Range of thickness Inches | Width Inches | Range of thickness Inches |
|-----------------|---|-----------------|--|
| | $\frac{7}{8} \times \frac{1}{4}$ to $\frac{3}{8}$ | | $2 \times \frac{3}{16}$ to $\frac{1}{2}$ |
| 1 | $\times \frac{1}{4}$ “ | $2\frac{1}{8}$ | $\times \frac{3}{16}$ “ |
| $1\frac{1}{8}$ | $\times \frac{3}{16}$ “ | $2\frac{1}{4}$ | $\times \frac{3}{16}$ “ |
| $1\frac{1}{4}$ | $\times \frac{3}{16}$ “ | $2\frac{3}{8}$ | $\times \frac{1}{4}$ “ |
| $1\frac{3}{8}$ | $\times \frac{3}{16}$ “ | $2\frac{1}{2}$ | $\times \frac{1}{4}$ to $\frac{5}{8}$ |
| $1\frac{1}{2}$ | $\times \frac{3}{16}$ “ | $2\frac{3}{4}$ | $\times \frac{1}{4}$ “ |
| $1\frac{5}{8}$ | $\times \frac{3}{16}$ “ | 3 | $\times \frac{5}{16}$ “ |
| $1\frac{3}{4}$ | $\times \frac{3}{16}$ “ | $3\frac{1}{2}$ | $\times \frac{5}{16}$ “ |
| $1\frac{7}{8}$ | $\times \frac{3}{16}$ “ | | |

Open Hearth Steel Round Edge Tire

Sizes we roll indicated by X

| Thickness Inches Width Inches | $\frac{3}{16}$ | $\frac{1}{4}$ | $\frac{5}{16}$ | $\frac{3}{8}$ | $\frac{7}{16}$ | $\frac{1}{2}$ | $\frac{9}{16}$ | $\frac{5}{8}$ | $\frac{11}{16}$ | $\frac{3}{4}$ | $\frac{13}{16}$ | $\frac{7}{8}$ | $\frac{15}{16}$ | 1 |
|--|----------------|---------------|----------------|---------------|----------------|---------------|----------------|---------------|-----------------|---------------|-----------------|---------------|-----------------|-----|
| $\frac{3}{4}$ | X | X | .. | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| $\frac{7}{8}$ | X | X | X | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 1 | X | X | X | X | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| $1\frac{1}{8}$ | X | X | X | X | X | X | ... | ... | ... | ... | ... | ... | ... | ... |
| $1\frac{1}{4}$ | ... | X | X | X | X | X | ... | ... | ... | ... | ... | ... | ... | ... |
| $1\frac{3}{8}$ | ... | X | X | X | X | X | ... | ... | ... | ... | ... | ... | ... | ... |
| $1\frac{1}{2}$ | ... | X | X | X | X | X | X | X | X | X | ... | ... | ... | ... |
| $1\frac{5}{8}$ | ... | X | X | X | X | X | X | X | X | X | ... | ... | ... | ... |
| $1\frac{3}{4}$ | ... | X | X | X | X | X | X | X | X | X | ... | ... | ... | ... |
| $1\frac{7}{8}$ | ... | X | X | X | X | X | X | X | X | X | ... | ... | ... | ... |
| 2 | ... | X | X | X | X | X | X | X | X | X | X | X | X | X |
| $2\frac{1}{8}$ | ... | ... | X | X | X | X | X | X | X | X | X | X | X | X |
| $2\frac{1}{4}$ | ... | ... | X | X | X | X | X | X | X | X | X | X | X | X |
| $2\frac{1}{2}$ | ... | ... | X | X | X | X | X | X | X | X | X | X | X | X |
| $2\frac{3}{4}$ | ... | ... | X | X | X | X | X | X | X | X | X | X | X | X |
| 3 | ... | ... | X | X | X | X | X | X | X | X | X | X | X | X |
| $3\frac{1}{4}$ | ... | ... | X | X | X | X | X | X | X | X | X | X | X | X |
| $3\frac{1}{2}$ | ... | ... | X | X | X | X | X | X | X | X | X | X | X | X |
| 4 | ... | ... | X | X | X | X | X | X | X | X | X | X | X | X |
| $4\frac{1}{2}$ | ... | ... | X | X | X | X | X | X | X | X | X | X | X | X |
| 5 | ... | ... | X | X | X | X | X | X | X | X | X | X | X | X |
| 6 | ... | ... | X | X | X | X | X | X | X | X | X | X | X | X |

Width measured on the flat

Open Hearth Axle Steel

INLAND Open Hearth Axle Steel is of an analysis especially adapted to this use.

Open Hearth Steel is superior to Bessemer for axles. Its structure and its very low phosphorous content prevent brittleness and breakages and adapt it admirably to threading and turning.

Axle Steel is a specialty with us and we are meeting the most rigid requirements of the leading wagon and carriage manufacturers in the west.

Sizes $\frac{7}{8}$ to 4 in. square.

For table of weights see pages 90 to 93.

Open Hearth Steel Stone Saws

Sizes we roll

3 x $\frac{1}{8}$ inch

$3\frac{1}{2}$ x $\frac{1}{8}$

4 x $\frac{1}{8}$

Also intermediate sizes as desired.

Open Hearth Spring Steel

Carriage or Railroad

OUR success in producing an Open Hearth Spring Steel of marked excellence has brought us the business of the largest and most exacting manufacturers of carriage, wagon and car springs.

This steel is furnished either in the regular Inland analysis or according to special analysis of our customers.

Sizes we roll

Rounds, $\frac{3}{8}$ to 2 inch.

For sizes and weights see page 17.

Flats, $\frac{3}{4}$ to $4\frac{1}{2}$ inch widths.

$\frac{1}{8}$ to $\frac{1}{2}$ inch thicknesses.

For sizes see page 18.

Flats rolled with Round Edges, the width being measured over all, and with concave faces.

Open Hearth Steel

1909

Concrete-Reinforcing Bars

WE ARE specialists in the manufacture of open hearth steel bars for concrete reinforcement work and supply a large tonnage.

Plain Bars

Soft, Medium or High Elastic Limit.

In all sizes, Rounds, Squares or Flats; of any length. See sizes we roll, pages 16, 17, and 18.

Cold Twisted Square Bars

Soft or Medium



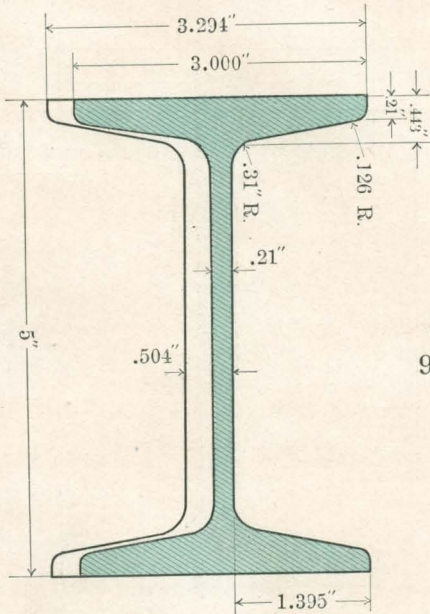
Sizes we roll

| Nominal diameter | Weight per foot pounds |
|--------------------|------------------------|
| $\frac{3}{8}$ inch | .478 |
| $\frac{1}{2}$ " | .850 |
| $\frac{5}{8}$ " | 1.328 |
| $\frac{3}{4}$ " | 1.913 |
| $\frac{7}{8}$ " | 2.603 |
| 1 " | 3.400 |
| $1\frac{1}{8}$ " | 4.303 |
| $1\frac{1}{4}$ " | 5.312 |

One complete turn or twist in eight diameters of bar twisted. Lengths up to 60 feet. Our Concrete-Reinforcing Bars are sold subject to standard specifications. Tests, both physical and chemical, to be made at our works, for which our equipment is available.

Open Hearth Steel I Beams

One
Half
Size



5 inch
9.75 lbs.

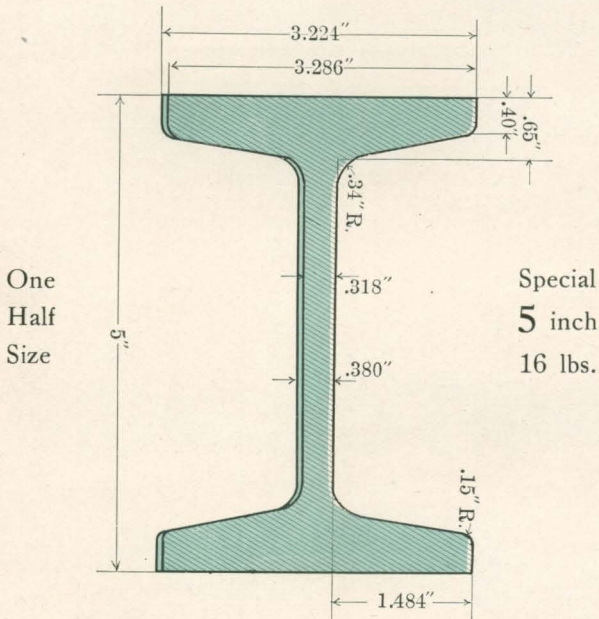
Sizes we roll

| Depth of beam, inches. | Weight per foot, pounds. | FLANGE WIDTH | | WEB THICKNESS | |
|------------------------|--------------------------|---------------------------|------------------------------|------------------------|------------------------|
| | | Inches and decimal parts. | Inches and fractional parts. | Decimal parts of inch. | Fract'l parts of inch. |
| 5 | 9.75 | 3.000 | 3 | 0.210 | $\frac{13}{64}$ |
| | 12.25 | 3.147 | $3\frac{9}{64}$ | 0.357 | $\frac{11}{32}$ |
| | 14.75 | 3.294 | $3\frac{19}{64}$ | 0.504 | $\frac{1}{2}$ |

Open Hearth Steel

1909

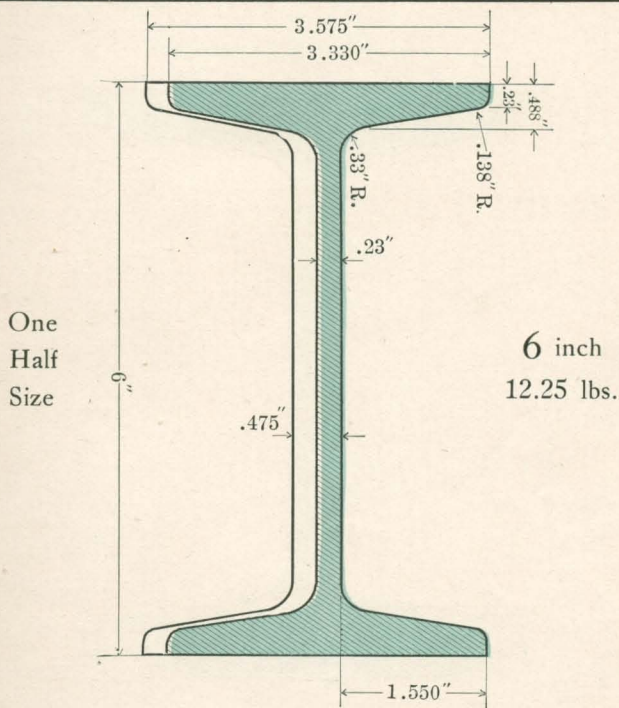
I Beams



Sizes we roll

| Depth of beam, inches. | Weight per foot, pounds. | FLANGE WIDTH | | WEB THICKNESS | |
|------------------------|--------------------------|---------------------------|------------------------------|------------------------|------------------------|
| | | Inches and decimal parts. | Inches and fractional parts. | Decimal parts of inch. | Fract'l parts of inch. |
| 5 | 16.00 | 3.224 | $3\frac{7}{32}$ | 0.318 | $\frac{5}{16}$ |
| | 17.00 | 3.286 | $3\frac{9}{32}$ | 0.380 | $\frac{3}{8}$ |

Open Hearth Steel I Beams



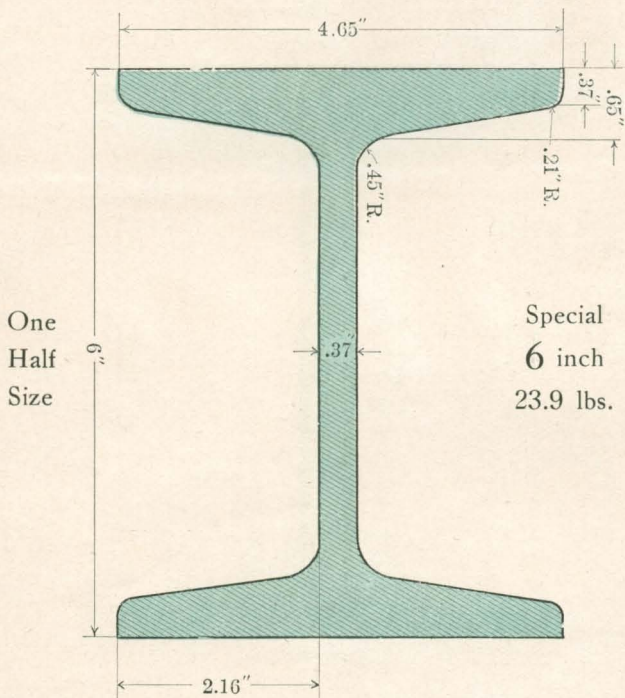
Sizes we roll

| Depth of beam, inches. | Weight per foot, pounds. | FLANGE WIDTH | | WEB THICKNESS | |
|------------------------|--------------------------|---------------------------|------------------------------|------------------------|------------------------|
| | | Inches and decimal parts. | Inches and fractional parts. | Decimal parts of inch. | Fract'l parts of inch. |
| 6 | 12.25 | 3.330 | $3\frac{21}{64}$ | 0.230 | $\frac{15}{64}$ |
| | 14.75 | 3.452 | $3\frac{29}{64}$ | 0.352 | $\frac{23}{64}$ |
| | 17.25 | 3.575 | $3\frac{37}{64}$ | 0.475 | $\frac{31}{64}$ |

Open Hearth Steel

1009

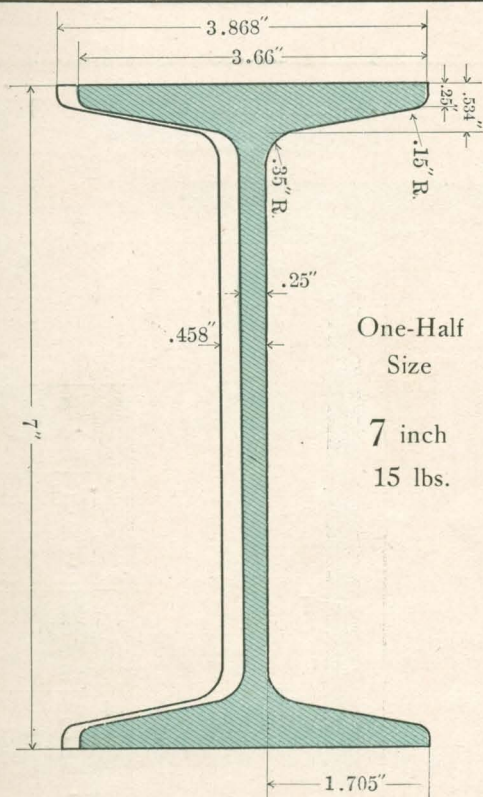
I Beams



Sizes we roll

| Depth of beam, inches. | Weight per foot, pounds. | FLANGE WIDTH | | WEB THICKNESS | |
|------------------------|--------------------------|---------------------------|---------------------------------|------------------------|--------------------|
| | | Inches and decimal parts. | Inches and fractional parts. | Decimal parts of inch. | Fractions of inch. |
| 6 | 23.9 | 4.65 | 4 ²¹ / ₃₂ | .375 | 3/8 |

Open Hearth Steel I Beams



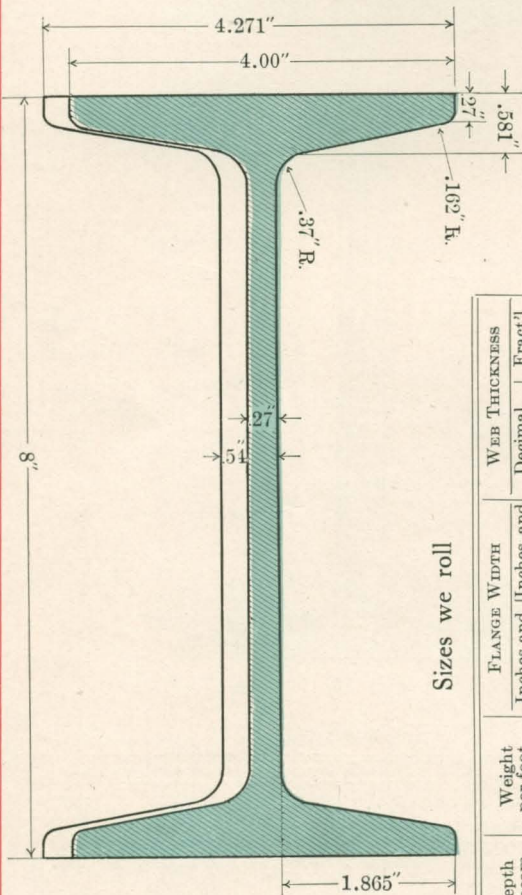
Sizes we roll

| Depth of beam, inches. | Weight per foot, pounds. | FLANGE WIDTH | | WEB THICKNESS | |
|------------------------|--------------------------|---------------------------|------------------------------|------------------------|------------------------|
| | | inches and decimal parts. | Inches and fractional parts. | Decimal parts of inch. | Fract'l parts of inch. |
| 7 | 15.00 | 3.66 | $3\frac{21}{32}$ | 0.25 | $\frac{1}{4}$ |
| | 17.50 | 3.763 | $3\frac{49}{64}$ | 0.353 | $\frac{23}{64}$ |
| | 20.00 | 3.868 | $3\frac{7}{8}$ | 0.458 | $\frac{15}{32}$ |

Open Hearth Steel

1909

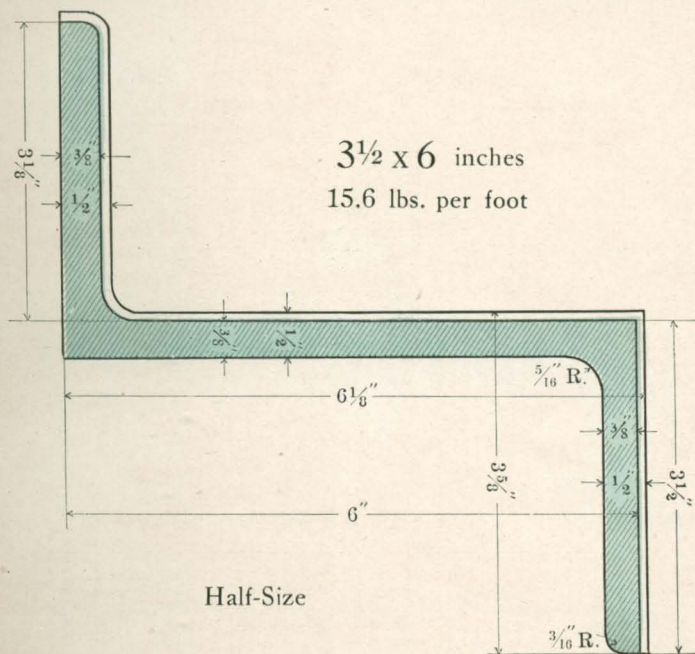
I Beams

One-Half
Size8 inch
18 lbs.

Sizes we roll

| Depth of beam, inches. | Weight per foot, pounds. | FLANGE WIDTH | | WEB THICKNESS | |
|------------------------|--------------------------|---------------------------|------------------------------|------------------------|---------------------------|
| | | Inches and decimal parts. | Inches and fractional parts. | Decimal parts of inch. | Fractional parts of inch. |
| 8 | 18.00 | 4.00 | 4 | 0.27 | $\frac{17}{64}$ |
| | 20.50 | 4.087 | $4\frac{3}{32}$ | 0.357 | $\frac{23}{64}$ |
| | 23.00 | 4.179 | $4\frac{11}{64}$ | 0.449 | $\frac{7}{16}$ |
| | 25.50 | 4.271 | $4\frac{17}{64}$ | 0.541 | $\frac{17}{32}$ |

Open Hearth Steel Z Bars

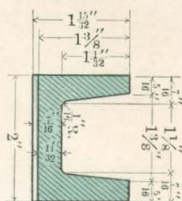


Sizes we roll

| SIZE—INCHES | | Weight per foot, pounds. | THICKNESS OF METAL | |
|-----------------|-----------------|--------------------------------|---------------------------------|---------------------------|
| Both flanges | Web. | | Fractional parts of inch. | Decimal parts of inch. |
| $3\frac{1}{2}$ | 6 | 15.6 | $\frac{3}{8}$ | .375 |
| $3\frac{9}{16}$ | $6\frac{1}{16}$ | 18.3 | $\frac{7}{16}$ | .438 |
| $3\frac{5}{8}$ | $6\frac{1}{8}$ | 21.0 | $\frac{1}{2}$ | .50 |

Open Hearth Steel Brake Beam Channels

One-Third
Size



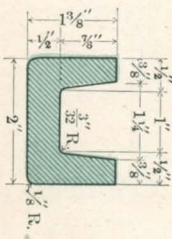
2 x 1³/₈ inch
5 lbs.

Sizes we roll

| Depth of beam, inches. | Weight per foot, pounds. | WIDTH | | THICKNESS OF WEB | |
|------------------------|--------------------------|---------------------------|---------------------------------|------------------------|--------------------------------|
| | | Inches and decimal parts. | Inches and fractional parts. | Decimal parts of inch. | Fract'l parts of inch. |
| 2 | 5. | 1.375 | 1 ³ / ₈ | 0.344 | 1 ¹ / ₃₂ |
| | 5.64 | 1.469 | 1 ¹⁵ / ₃₂ | 0.438 | 7/ ₁₆ |

Open Hearth Steel Brake Beam Channels

One-Third
Size



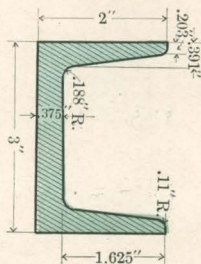
2 x 1 $\frac{3}{8}$ inch
6 lbs.

Sizes we roll

| Depth of beam, inches. | Weight per foot, pounds. | WIDTH | | THICKNESS OF WEB | |
|------------------------|--------------------------|---------------------------|------------------------------|------------------------|------------------------|
| | | Inches and decimal parts. | Inches and fractional parts. | Decimal parts of inch. | Fract'l parts of inch. |
| 2 | 6. | 1.375 | 1 $\frac{3}{8}$ | 0.5 | $\frac{1}{2}$ |

Open Hearth Steel Channels

One-Third
Size



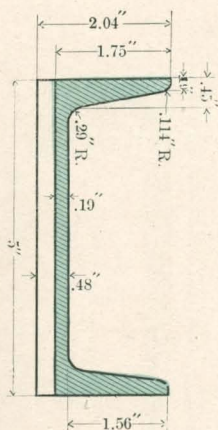
Special
3 inch
6.47 lbs.

Sizes we roll

| Depth of channel, inches. | Weight per foot, pounds. | WIDTH | | THICKNESS OF WEB | |
|---------------------------|--------------------------|---------------------------|------------------------------|------------------------|------------------------|
| | | Inches and decimal parts. | Inches and fractional parts. | Decimal parts of inch. | Fract'l parts of inch. |
| 3 | 6.47 | 1.937 | $1\frac{15}{16}$ | 0.312 | $\frac{5}{16}$ |
| | 7.10 | 2.00 | 2 | 0.375 | $\frac{3}{8}$ |

Open Hearth Steel Channels

One-Third
Size



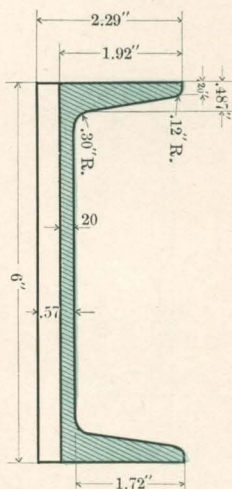
5 inch
6½ lbs.

Sizes we roll

| Depth of channel, inches. | Weight per foot, pounds. | WIDTH | | THICKNESS OF WEB | |
|---------------------------|--------------------------|---------------------------|---------------------------------|------------------------|--------------------|
| | | Inches and decimal parts. | Inches and fractional parts. | Decimal parts of inch. | Fractions of inch. |
| 5 | 6.5 | 1.75 | 1¾ | 0.19 | 3/16 |
| | 9.0 | 1.89 | 1 ⁵⁷ / ₆₄ | 0.33 | 21/64 |
| | 11.5 | 2.04 | 2 ³ / ₆₄ | 0.48 | 31/64 |

Open Hearth Steel Channels

One-Third
Size



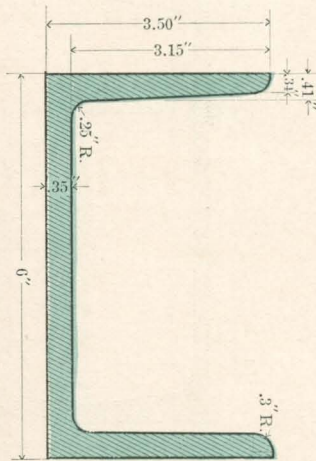
6 inch
8 lbs.

Sizes we roll

| Depth of channel, inches. | Weight per foot, pounds. | WIDTH | | THICKNESS OF WEB | |
|---------------------------|--------------------------|---------------------------|------------------------------|------------------------|------------------------|
| | | Inches and decimal parts. | Inches and fractional parts. | Decimal parts of inch. | Fract'l parts of inch. |
| 6 | 8.0 | 1.92 | $1\frac{59}{64}$ | 0.20 | $\frac{13}{64}$ |
| | 10.5 | 2.04 | $2\frac{3}{64}$ | 0.32 | $\frac{21}{64}$ |
| | 13.0 | 2.17 | $2\frac{11}{64}$ | 0.45 | $\frac{29}{64}$ |
| | 15.5 | 2.29 | $2\frac{19}{64}$ | 0.57 | $\frac{37}{64}$ |

Open Hearth Steel Channels

One-Third
Size



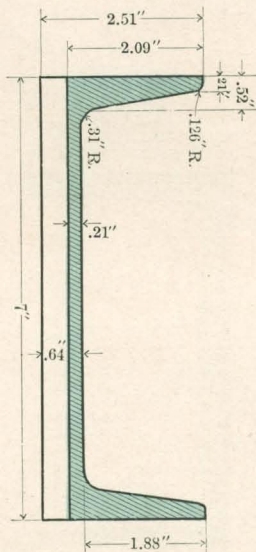
Special
6 inch
15 lbs.

Sizes we roll

| Depth of channel, inches. | Weight per foot, pounds. | WIDTH | | THICKNESS OF WEB | |
|---------------------------|--------------------------|---------------------------|------------------------------|------------------------|------------------------|
| | | Inches and decimal parts. | Inches and fractional parts. | Decimal parts of inch. | Fract'l parts of inch. |
| 6 | 15.0 | 3.50 | 3½ | .35 | 11/32 |

Open Hearth Steel Channels

One-Third
Size



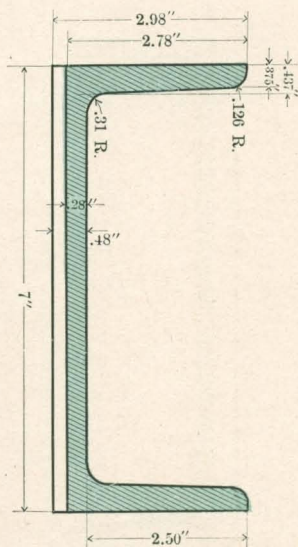
7 inch
9 $\frac{3}{4}$ lbs.

Sizes we roll

| Depth of channel, inches. | Weight per foot, pounds. | WIDTH | | THICKNESS OF WEB | |
|---------------------------|--------------------------|---------------------------|------------------------------|------------------------|---------------------------|
| | | Inches and decimal parts. | Inches and fractional parts. | Decimal parts of inch. | Fractional parts of inch. |
| 7 | 9.75 | 2.09 | 2 $\frac{3}{32}$ | 0.21 | 7/32 |
| | 12.25 | 2.20 | 2 $\frac{13}{64}$ | 0.32 | 21/64 |
| | 13.60 | 2.25 | 2 $\frac{1}{4}$ | 0.36 | 3/8 |
| | 14.75 | 2.30 | 2 $\frac{19}{64}$ | 0.42 | 27/64 |
| | 17.25 | 2.41 | 2 $\frac{13}{32}$ | 0.53 | 17/32 |
| | 19.75 | 2.51 | 2 $\frac{33}{64}$ | 0.64 | 41/64 |

Open Hearth Steel Channels

One-Third
Size



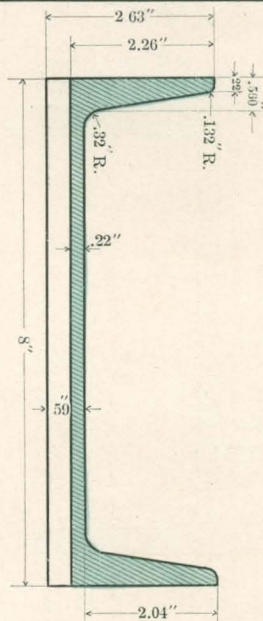
Special
7 inch
13.6 lbs.

Sizes we roll

| Depth of channel, inches. | Weight per foot, pounds. | WIDTH | | THICKNESS OF WEB | |
|---------------------------|--------------------------|---------------------------|------------------------------|------------------------|------------------------|
| | | Inches and decimal parts. | Inches and fractional parts. | Decimal parts of inch. | Fract'l parts of inch. |
| 7 | 13.6 | 2.78 | $2\frac{25}{32}$ | 0.28 | $\frac{9}{32}$ |
| | 16.5 | 2.90 | $2\frac{29}{32}$ | 0.40 | $\frac{13}{32}$ |
| | 18.5 | 2.98 | $2\frac{63}{64}$ | 0.48 | $\frac{31}{64}$ |

Open Hearth Steel Channels

One-Third
Size



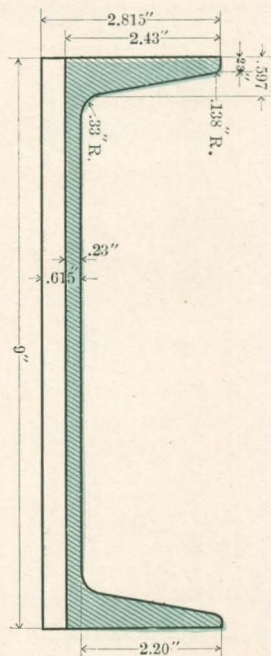
8 inch
11 $\frac{1}{4}$ lbs.

Sizes we roll

| Depth of channel, inches. | Weight per foot, pounds. | WIDTH | | THICKNESS OF WEB | |
|---------------------------|--------------------------|---------------------------|------------------------------|------------------------|------------------------|
| | | Inches and decimal parts. | Inches and fractional parts. | Decimal parts of inch. | Fract'l parts of inch. |
| 8 | 11.25 | 2.26 | 2 $\frac{17}{64}$ | 0.22 | $\frac{7}{32}$ |
| | 13.75 | 2.35 | 2 $\frac{23}{64}$ | 0.31 | $\frac{5}{16}$ |
| | 16.25 | 2.45 | 2 $\frac{29}{64}$ | 0.40 | $\frac{13}{32}$ |
| | 18.75 | 2.54 | 2 $\frac{35}{64}$ | 0.49 | $\frac{1}{2}$ |
| | 21.25 | 2.63 | 2 $\frac{41}{64}$ | 0.59 | $\frac{19}{32}$ |

Open Hearth Steel Channels

One-Third
Size

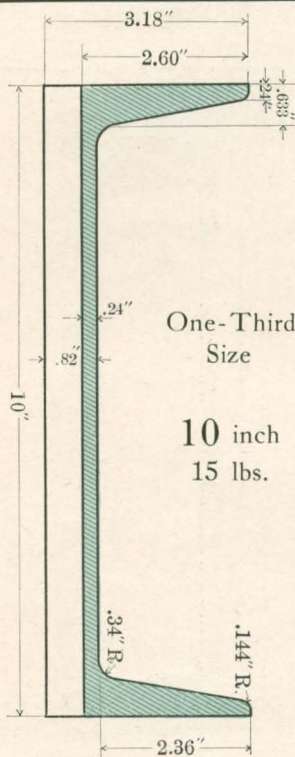


9 inch
13 $\frac{1}{4}$ lbs.

Sizes we roll

| Depth of channel, inches. | Weight per foot, pounds. | WIDTH | | THICKNESS OF WEB | |
|---------------------------|--------------------------|---------------------------|------------------------------|------------------------|------------------------|
| | | Inches and decimal parts. | Inches and fractional parts. | Decimal parts of inch. | Fract'l parts of inch. |
| 9 | 13.25 | 2.430 | $\frac{27}{16}$ | 0.23 | $\frac{15}{64}$ |
| | 15.00 | 2.488 | $\frac{231}{64}$ | 0.288 | $\frac{9}{32}$ |
| | 20.00 | 2.652 | $\frac{221}{32}$ | 0.452 | $\frac{29}{64}$ |
| | 25.00 | 2.815 | $\frac{213}{16}$ | 0.615 | $\frac{39}{64}$ |

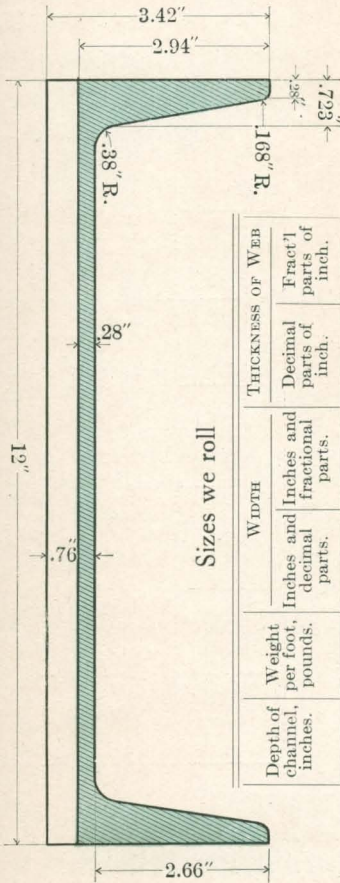
Open Hearth Steel Channels



Sizes we roll

| Depth of channel, inches. | Weight per foot, pounds. | WIDTH | | THICKNESS OF WEB | |
|---------------------------|--------------------------|---------------------------|------------------------------|------------------------|------------------------|
| | | Inches and decimal parts. | Inches and fractional parts. | Decimal parts of inch. | Fract'l parts of inch. |
| 10 | 15.0 | 2.60 | $2\frac{39}{64}$ | 0.24 | $\frac{15}{64}$ |
| | 20.0 | 2.74 | $2\frac{3}{4}$ | 0.38 | $\frac{3}{8}$ |
| | 25.0 | 2.88 | $2\frac{7}{8}$ | 0.52 | $\frac{17}{32}$ |
| | 30.0 | 3.03 | $3\frac{1}{32}$ | 0.67 | $\frac{43}{64}$ |
| | 35.0 | 3.18 | $3\frac{3}{16}$ | 0.82 | $\frac{53}{64}$ |

Open Hearth Steel Channels



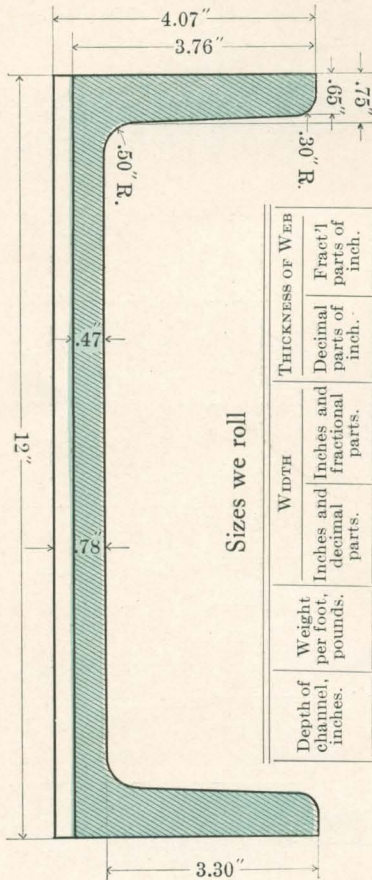
One-Third Size

12 inch
20½ lbs.

Sizes we roll

| Depth of channel, inches. | Weight per foot, pounds. | WIDTH | | THICKNESS OF WEB | |
|---------------------------|--------------------------|--------------------------------------|---------------------------------|------------------------|------------------------|
| | | Inches and decimal fractional parts. | Inches and fractional parts. | Decimal parts of inch. | Fract'l parts of inch. |
| 12 | 20.5 | 2.94 | 2 ¹⁵ / ₁₆ | 0.28 | 9/32 |
| | 25.0 | 3.05 | 3 ³ / ₆₄ | 0.39 | 25/64 |
| | 30.0 | 3.17 | 3 ¹¹ / ₆₄ | 0.51 | 33/64 |
| | 35.0 | 3.29 | 3 ¹⁹ / ₆₄ | 0.63 | 41/64 |
| | 40.0 | 3.42 | 3 ²⁷ / ₆₄ | 0.76 | 49/64 |

Open Hearth Steel Channels



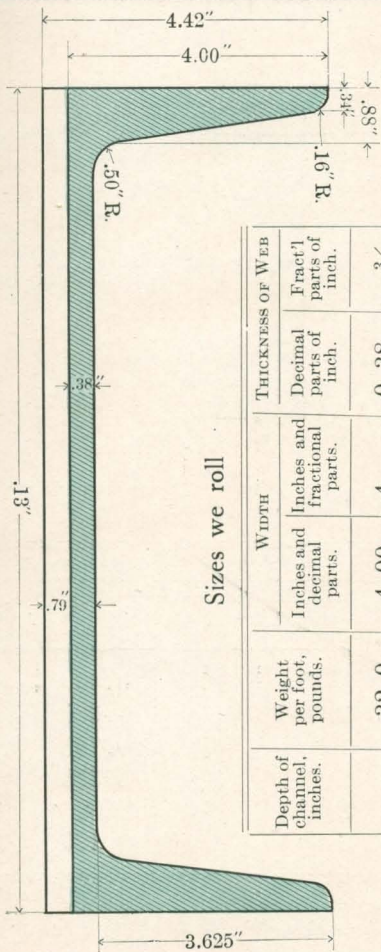
One-Third Size

Special
12 inch
35 lbs.

Sizes we roll

| Depth of channel, inches. | Weight per foot, pounds. | WIDTH | | THICKNESS OF WEB | |
|---------------------------|--------------------------|---------------------------|------------------------------|------------------------|---------------------------|
| | | Inches and decimal parts. | Inches and fractional parts. | Decimal parts of inch. | Fractional parts of inch. |
| 12 | 35.0 | 3.76 | $3\frac{49}{64}$ | 0.47 | $\frac{15}{32}$ |
| | 40.0 | 3.89 | $3\frac{57}{64}$ | 0.59 | $\frac{19}{32}$ |
| | 44.3 | 4.00 | 4 | 0.70 | $\frac{45}{64}$ |
| | 48.0 | 4.07 | $4\frac{5}{64}$ | 0.78 | $\frac{25}{32}$ |

Open Hearth Steel Channels



One-Third Size

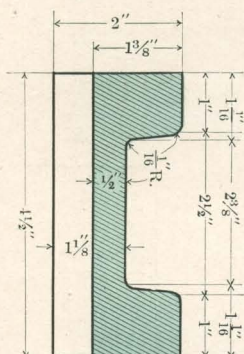
Special
13 inch
32 lbs.

Sizes we roll

| Depth of channel, inches. | Weight per foot, pounds. | WIDTH | | THICKNESS OF WEB | |
|---------------------------|--------------------------|---------------------------|------------------------------|------------------------|------------------------|
| | | Inches and decimal parts. | Inches and fractional parts. | Decimal parts of inch. | Frac'tl parts of inch. |
| 13 | 32.0 | 4.00 | 4 | 0.38 | $\frac{3}{8}$ |
| | 35.0 | 4.07 | $4\frac{5}{64}$ | 0.45 | $\frac{29}{64}$ |
| | 37.0 | 4.12 | $4\frac{1}{8}$ | 0.50 | $\frac{1}{2}$ |
| | 40.0 | 4.18 | $4\frac{3}{16}$ | 0.56 | $\frac{9}{16}$ |
| | 50.0 | 4.42 | $4\frac{27}{64}$ | 0.79 | $\frac{51}{64}$ |

Open Hearth Steel Channel Arch Bars

One-Third
Size



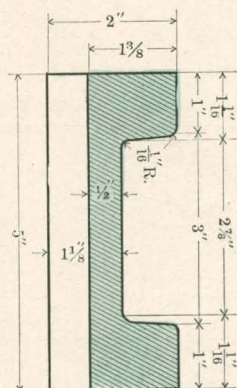
4¹/₂ inch
13.8 lbs.

Sizes we roll

| Depth of arch bar, inches. | Weight per foot, pounds. | WIDTH | | THICKNESS OF WEB | |
|-----------------------------------|--------------------------|---------------------------|-------------------------------|------------------------|-------------------------------|
| | | Inches and decimal parts. | Inches and fractional parts. | Decimal parts of inch. | Fract'l parts of inch. |
| 4¹/₂ | 13.8 | 1.375 | 1 ³ / ₈ | 0.50 | 1/2 |
| | 15.7 | 1.50 | 1 ¹ / ₂ | 0.625 | 5/8 |
| | 17.6 | 1.625 | 1 ⁵ / ₈ | 0.75 | 3/4 |
| | 19.5 | 1.75 | 1 ³ / ₄ | 0.875 | 7/8 |
| | 21.5 | 1.875 | 1 ⁷ / ₈ | 1.00 | 1 |
| | 23.4 | 2.00 | 2 | 1.125 | 1 ¹ / ₈ |

Open Hearth Steel Channel Arch Bars

One-Third
Size



5 inch
14.6 lbs.

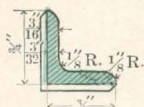
Sizes we roll

| Depth of arch bar, inches. | Weight per foot, pounds. | WIDTH | | THICKNESS OF WEB | |
|----------------------------------|--------------------------------|---------------------------------|------------------------------------|------------------------------|------------------------------|
| | | Inches and decimal parts. | Inches and fractional parts. | Decimal parts of inch. | Fract'l parts of inch. |
| 5 | 14.6 | 1.375 | 1 3/8 | 0.50 | 1/2 |
| | 16.7 | 1.50 | 1 1/2 | 0.625 | 5/8 |
| | 18.9 | 1.625 | 1 5/8 | 0.75 | 3/4 |
| | 21.0 | 1.75 | 1 3/4 | 0.875 | 7/8 |
| | 23.1 | 1.875 | 1 7/8 | 1.00 | 1 |
| | 25.2 | 2.00 | 2 | 1.125 | 1 1/8 |

Open Hearth Steel

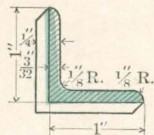
Angles

Sizes we roll (in inches)



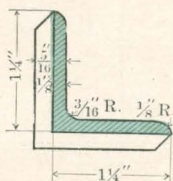
| | | |
|---|----|--------------|
| $\frac{3}{4} \times \frac{3}{4} \times \frac{1}{8}$ | .6 | lbs. per ft. |
| $\times \frac{3}{16}$ | .9 | “ “ “ |

Half Size



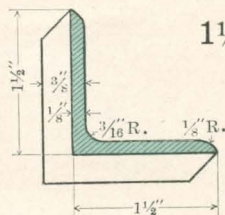
| | | |
|---------------------------------|-----|--------------|
| $1 \times 1 \times \frac{1}{8}$ | .8 | lbs. per ft. |
| $\times \frac{3}{16}$ | 1.2 | “ “ “ |
| $\times \frac{1}{4}$ | 1.5 | “ “ “ |

Half Size



| | | |
|---|------|--------------|
| $1\frac{1}{4} \times 1\frac{1}{4} \times \frac{1}{8}$ | 1.1 | lbs. per ft. |
| $\times \frac{3}{16}$ | 1.48 | “ “ “ |
| $\times \frac{1}{4}$ | 2.00 | “ “ “ |
| $\times \frac{5}{16}$ | 2.4 | “ “ “ |

Half Size

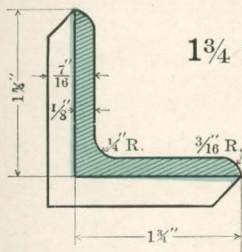


| | | |
|---|-----|--------------|
| $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{8}$ | 1.3 | lbs. per ft. |
| $\times \frac{3}{16}$ | 1.8 | “ “ “ |
| $\times \frac{1}{4}$ | 2.4 | “ “ “ |
| $\times \frac{5}{16}$ | 2.7 | “ “ “ |
| $\times \frac{3}{8}$ | 3.4 | “ “ “ |

Half Size

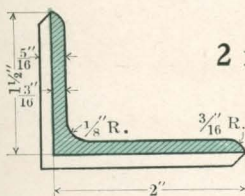
Open Hearth Steel Angles

Sizes we roll (in inches)



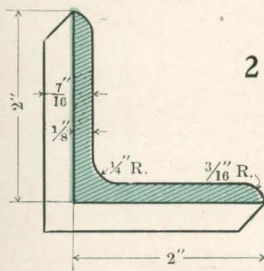
Half Size

| | | |
|---|-----|--------------|
| $1\frac{3}{4} \times 1\frac{3}{4} \times \frac{1}{8}$ | 1.4 | lbs. per ft. |
| $\times \frac{3}{16}$ | 2.2 | " " " |
| $\times \frac{1}{4}$ | 2.8 | " " " |
| $\times \frac{5}{16}$ | 3.4 | " " " |
| $\times \frac{3}{8}$ | 4.0 | " " " |
| $\times \frac{7}{16}$ | 4.6 | " " " |



Half Size

| | | |
|--|-----|--------------|
| $2 \times 1\frac{1}{2} \times \frac{1}{8}$ | 1.8 | lbs. per ft. |
| $\times \frac{3}{16}$ | 2.1 | " " " |
| $\times \frac{1}{4}$ | 2.8 | " " " |
| $\times \frac{5}{16}$ | 3.4 | " " " |

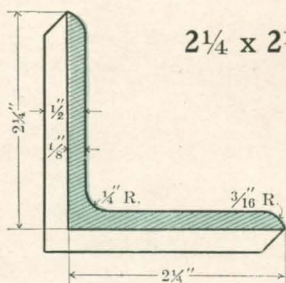


Half Size

| | | |
|---------------------------------|-----|--------------|
| $2 \times 2 \times \frac{1}{8}$ | 1.7 | lbs. per ft. |
| $\times \frac{3}{16}$ | 2.5 | " " " |
| $\times \frac{1}{4}$ | 3.2 | " " " |
| $\times \frac{5}{16}$ | 4.0 | " " " |
| $\times \frac{3}{8}$ | 4.7 | " " " |
| $\times \frac{7}{16}$ | 5.3 | " " " |

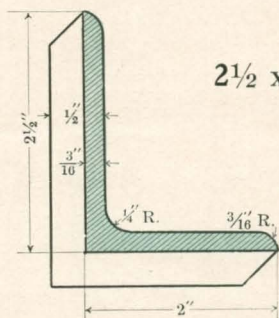
Open Hearth Steel Angles

Sizes we roll (in inches)



Half Size

| | | |
|---|-----|--------------|
| $2\frac{1}{4} \times 2\frac{1}{4} \times \frac{1}{8}$ | 1.9 | lbs. per ft. |
| $\times \frac{3}{16}$ | 2.8 | " " " |
| $\times \frac{1}{4}$ | 3.7 | " " " |
| $\times \frac{5}{16}$ | 4.5 | " " " |
| $\times \frac{3}{8}$ | 5.3 | " " " |
| $\times \frac{7}{16}$ | 6.1 | " " " |
| $\times \frac{1}{2}$ | 6.8 | " " " |



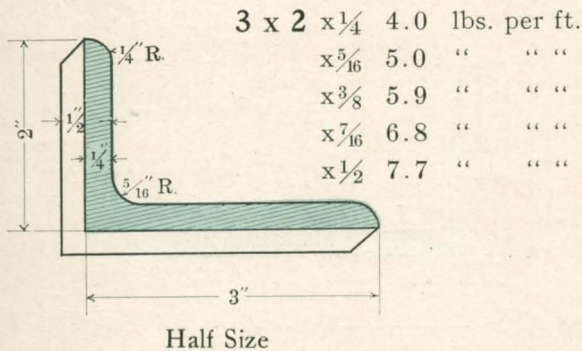
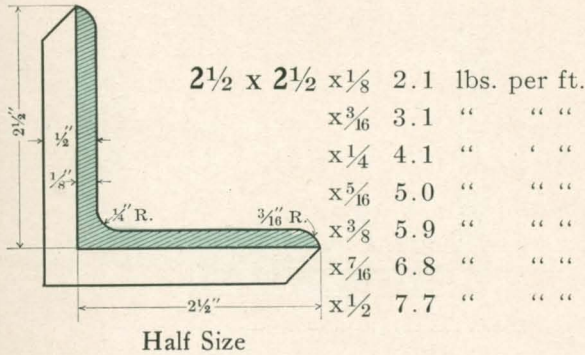
Half Size

| | | |
|--|-----|--------------|
| $2\frac{1}{2} \times 2 \times \frac{1}{8}$ | 1.9 | lbs. per ft. |
| $\times \frac{3}{16}$ | 2.8 | " " " |
| $\times \frac{1}{4}$ | 3.7 | " " " |
| $\times \frac{5}{16}$ | 4.5 | " " " |
| $\times \frac{3}{8}$ | 5.3 | " " " |
| $\times \frac{7}{16}$ | 6.1 | " " " |
| $\times \frac{1}{2}$ | 6.8 | " " " |

Open Hearth Steel

Angles

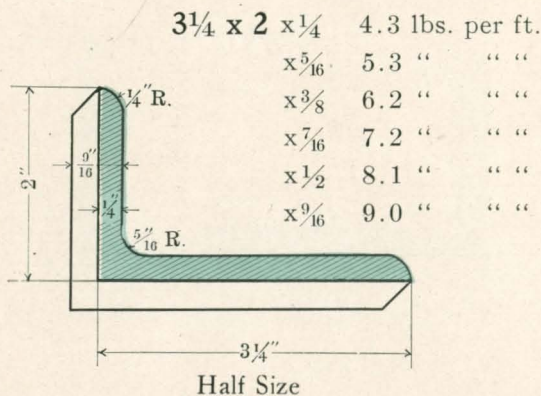
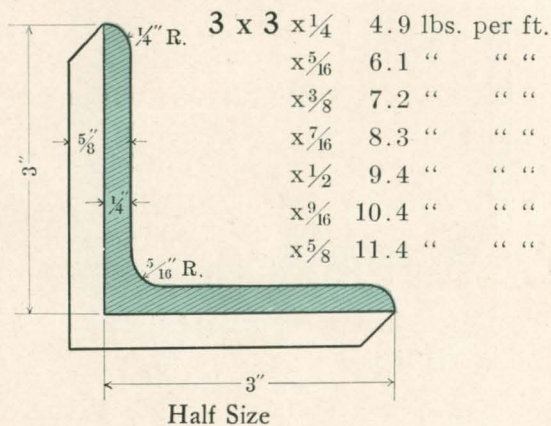
Sizes we roll (in inches)



Open Hearth Steel

Angles

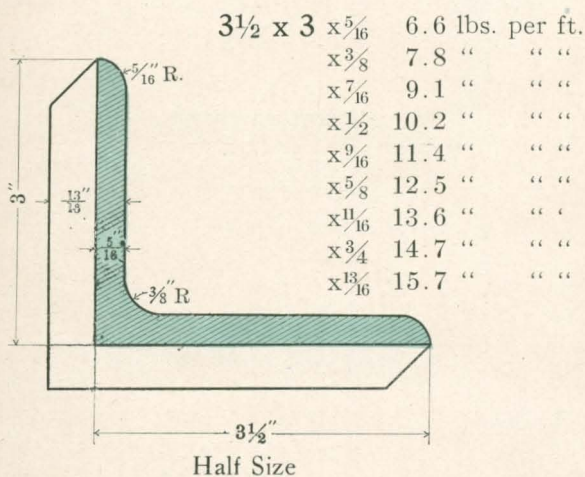
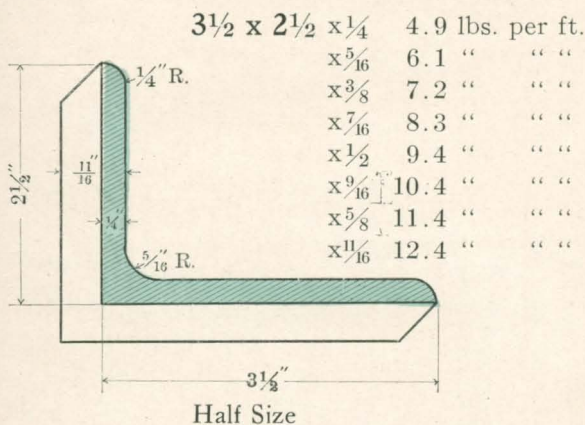
Sizes we roll (in inches)



Open Hearth Steel

Angles

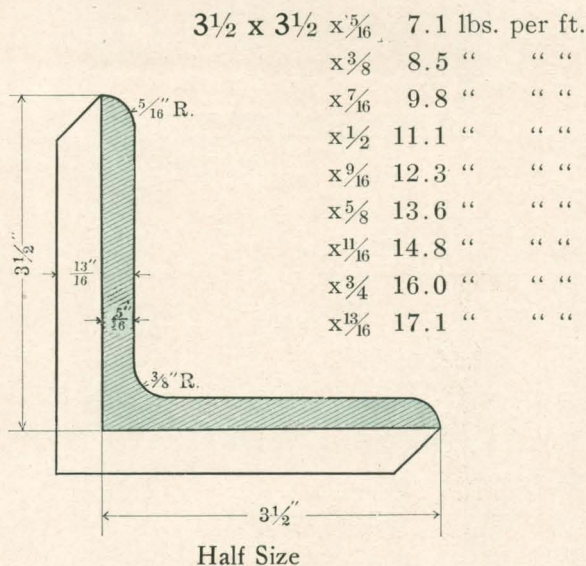
Sizes we roll (in inches)



Open Hearth Steel

Angles

Sizes we roll (in inches)

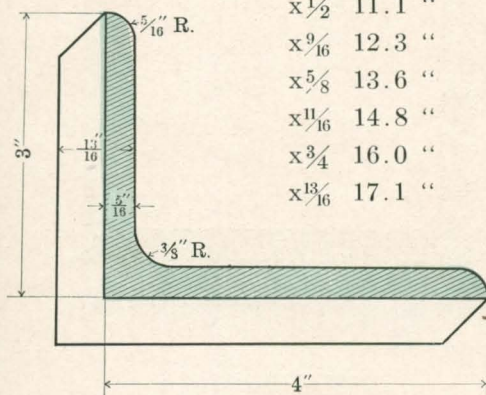


Open Hearth Steel

Angles

Sizes we roll (in inches)

| | | | |
|-------|-------------------|------|--------------|
| 4 x 3 | x $\frac{5}{16}$ | 7.1 | lbs. per ft. |
| | x $\frac{3}{8}$ | 8.5 | " " " |
| | x $\frac{7}{16}$ | 9.8 | " " " |
| | x $\frac{1}{2}$ | 11.1 | " " " |
| | x $\frac{9}{16}$ | 12.3 | " " " |
| | x $\frac{5}{8}$ | 13.6 | " " " |
| | x $\frac{11}{16}$ | 14.8 | " " " |
| | x $\frac{3}{4}$ | 16.0 | " " " |
| | x $\frac{13}{16}$ | 17.1 | " " " |

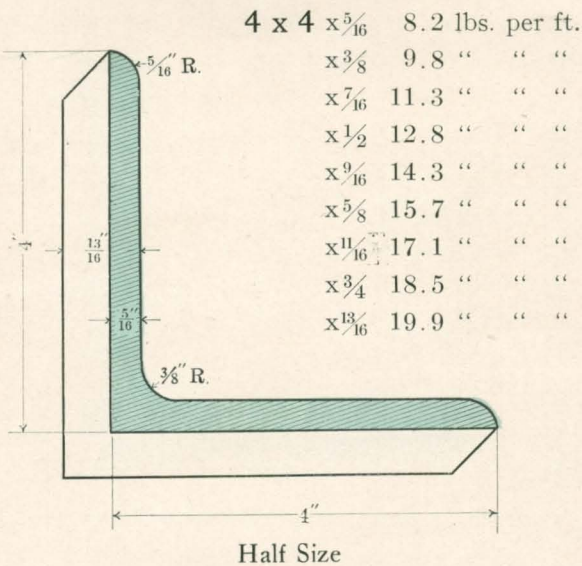


Half Size

Open Hearth Steel

Angles

Sizes we roll (in inches)

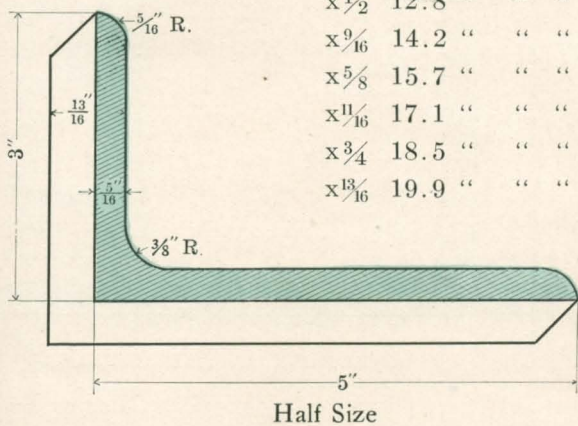


Open Hearth Steel

Angles

Sizes we roll (in inches)

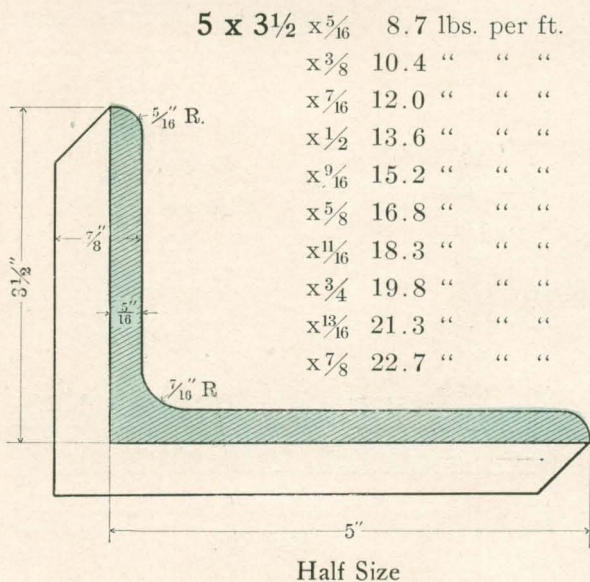
| | | | |
|--------------|-------------------|------|--------------|
| 5 x 3 | x $\frac{5}{16}$ | 8.2 | lbs. per ft. |
| | x $\frac{3}{8}$ | 9.8 | “ “ “ |
| | x $\frac{7}{16}$ | 11.3 | “ “ “ |
| | x $\frac{1}{2}$ | 12.8 | “ “ “ |
| | x $\frac{9}{16}$ | 14.2 | “ “ “ |
| | x $\frac{5}{8}$ | 15.7 | “ “ “ |
| | x $\frac{11}{16}$ | 17.1 | “ “ “ |
| | x $\frac{3}{4}$ | 18.5 | “ “ “ |
| | x $\frac{13}{16}$ | 19.9 | “ “ “ |



Open Hearth Steel

Angles

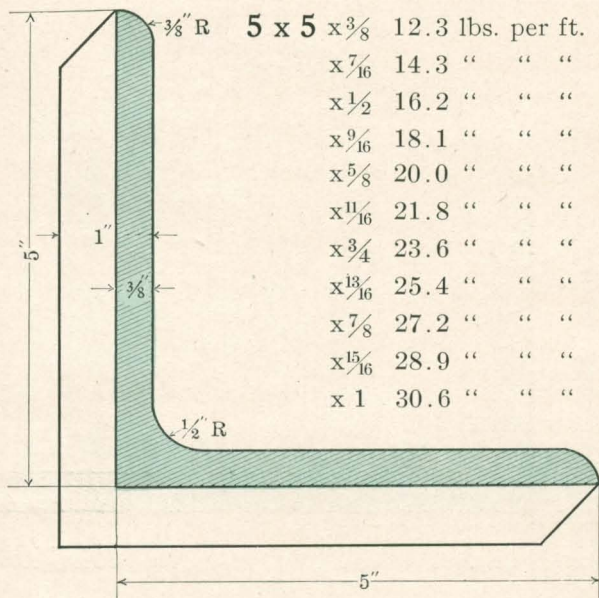
Sizes we roll (in inches)



Open Hearth Steel

Angles

Sizes we roll (in inches)



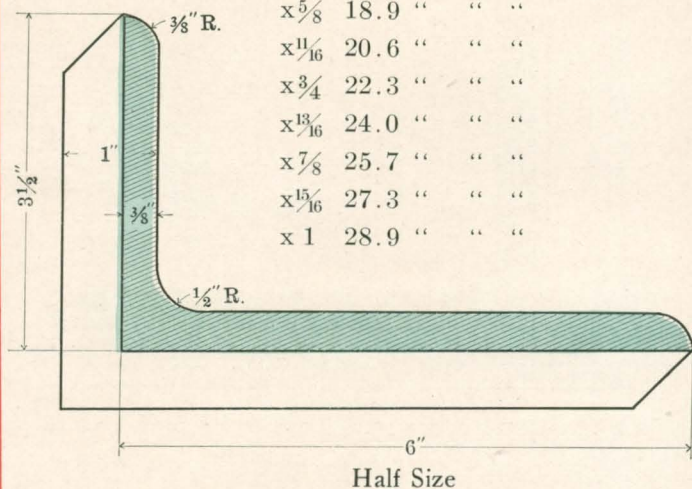
Half Size

Open Hearth Steel

Angles

Sizes we roll (in inches)

| | | |
|---------------------|-------------------|-------------------|
| 6 x 3 $\frac{1}{2}$ | x $\frac{3}{8}$ | 11.7 lbs. per ft. |
| | x $\frac{7}{16}$ | 13.5 " " " |
| | x $\frac{1}{2}$ | 15.3 " " " |
| | x $\frac{9}{16}$ | 17.1 " " " |
| | x $\frac{5}{8}$ | 18.9 " " " |
| | x $\frac{11}{16}$ | 20.6 " " " |
| | x $\frac{3}{4}$ | 22.3 " " " |
| | x $\frac{13}{16}$ | 24.0 " " " |
| | x $\frac{7}{8}$ | 25.7 " " " |
| | x $\frac{15}{16}$ | 27.3 " " " |
| | x 1 | 28.9 " " " |



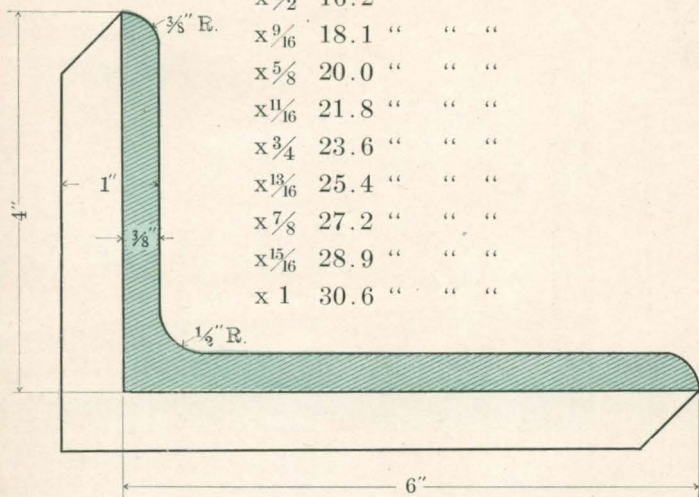
Open Hearth Steel

Angles

Sizes we roll (in inches)

6 x 4 x $\frac{3}{8}$ 12.3 lbs. per ft.x $\frac{7}{16}$ 14.3 " " "x $\frac{1}{2}$ 16.2 " " "x $\frac{9}{16}$ 18.1 " " "x $\frac{5}{8}$ 20.0 " " "x $\frac{11}{16}$ 21.8 " " "x $\frac{3}{4}$ 23.6 " " "x $\frac{13}{16}$ 25.4 " " "x $\frac{7}{8}$ 27.2 " " "x $\frac{15}{16}$ 28.9 " " "

x 1 30.6 " " "

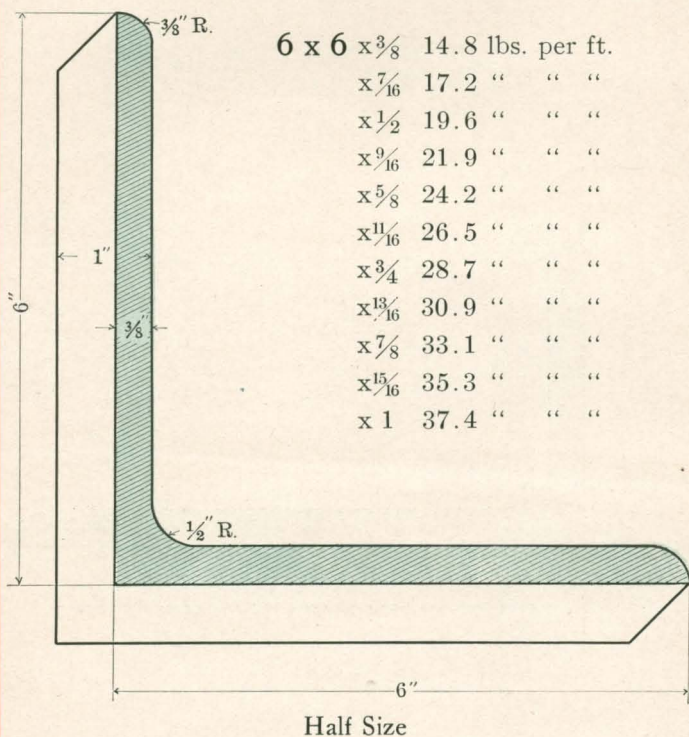


Half Size

Open Hearth Steel

Angles

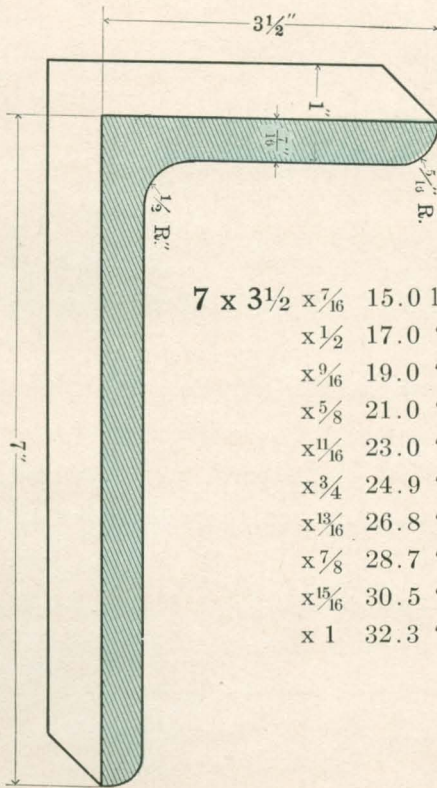
Sizes we roll (in inches)



Open Hearth Steel

Angles

Sizes we roll (in inches)



| | | | | | |
|------------------|---------------|-------------|-------------|------------|------------|
| 7 x 3 1/2 | x 7/16 | 15.0 | lbs. | per | ft. |
| | x 1/2 | 17.0 | " | " | " |
| | x 9/16 | 19.0 | " | " | " |
| | x 5/8 | 21.0 | " | " | " |
| | x 11/16 | 23.0 | " | " | " |
| | x 3/4 | 24.9 | " | " | " |
| | x 13/16 | 26.8 | " | " | " |
| | x 7/8 | 28.7 | " | " | " |
| | x 15/16 | 30.5 | " | " | " |
| | x 1 | 32.3 | " | " | " |

Half Size

Inland Open Hearth Steel

Plow Beam Billets

THE use of open hearth steel for the manufacture of plow beam billets originated with us.

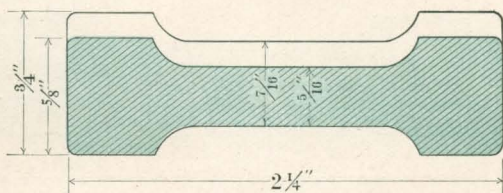
Open hearth steel is superior to Bessemer for this use in many ways, particularly because the structure of open hearth steel permits a higher carbon percentage than would be safe with Bessemer.

This means superior rigidity without brittleness, giving a plow beam that will not bend and that will resist breaking, to the last degree.

Open Hearth Steel Plow Beam Billets

No. 140

Exact Size



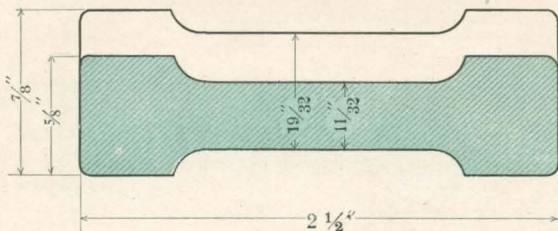
$2\frac{1}{4} \times \frac{5}{8}$ —4 lbs. per ft.

Sizes we roll

| Depth of beam, inches. | Width of flange, inches. | Thickness of web, inches. | Weight per foot, pounds. |
|----------------------------------|--------------------------|---------------------------|--------------------------|
| 2$\frac{1}{4}$ | $\frac{5}{8}$ | $\frac{5}{16}$ | 4.00 |
| | $\frac{11}{16}$ | $\frac{3}{8}$ | 4.50 |
| | $\frac{3}{4}$ | $\frac{7}{16}$ | 5.00 |

Open Hearth Steel Plow Beam Billets

No. 141
Exact Size



$2\frac{1}{2} \times \frac{5}{8}$ —3.85 lbs. per ft.

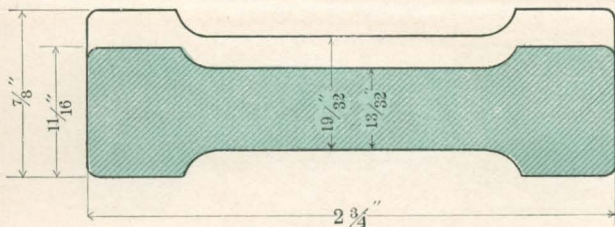
Sizes we roll

| Depth of beam, inches | Width of flange, inches. | Thickness of web, inches. | Weight per foot, pounds. |
|-----------------------|--------------------------|---------------------------|--------------------------|
| 2½ | 5/8 | 11/32 | 3.85 |
| | 11/16 | 13/32 | 4.38 |
| | 3/4 | 15/32 | 4.91 |
| | 13/16 | 17/32 | 5.44 |
| | 7/8 | 19/32 | 5.97 |

Open Hearth Steel Plow Beam Billets

No. 142

Exact Size



$2\frac{3}{4} \times 1\frac{1}{16}$ — 5 lbs. per ft.

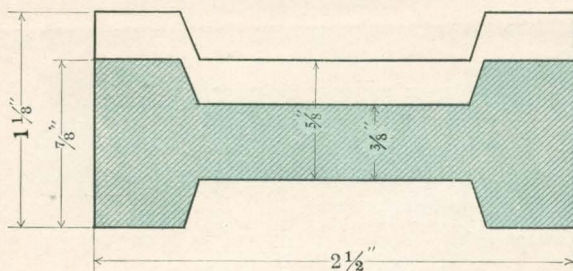
Sizes we roll

| Depth of beam, inches. | Width of flange, inches. | Thickness of web, inches. | Weight per foot, pounds. |
|----------------------------------|--------------------------|---------------------------|--------------------------|
| $2\frac{3}{4}$ | $\frac{11}{16}$ | $\frac{13}{32}$ | 5.00 |
| | $\frac{3}{4}$ | $\frac{15}{32}$ | 5.58 |
| | $\frac{13}{16}$ | $\frac{17}{32}$ | 6.17 |
| | $\frac{7}{8}$ | $\frac{19}{32}$ | 6.75 |

Open Hearth Steel Plow Beam Billets

No. 144

Exact Size

 $2 \frac{1}{2} \times \frac{7}{8}$ —5 lbs. per ft.

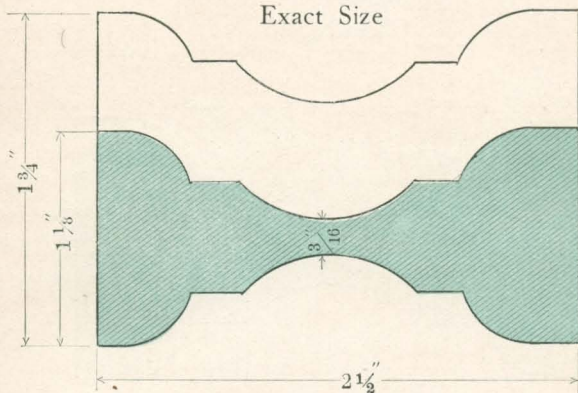
Sizes we roll

| Depth of beam, inches. | Width of flange, inches. | Thickness of web, inches. | Weight per foot, pounds. |
|-----------------------------------|--------------------------|---------------------------|--------------------------|
| $2 \frac{1}{2}$ | $\frac{7}{8}$ | $\frac{3}{8}$ | 5.00 |
| | $\frac{15}{16}$ | $\frac{7}{16}$ | 5.53 |
| | 1 | $\frac{1}{2}$ | 6.06 |
| | $1 \frac{1}{16}$ | $\frac{9}{16}$ | 6.59 |
| | $1 \frac{1}{8}$ | $\frac{5}{8}$ | 7.12 |

Open Hearth Steel Plow Beam Billets

No. 150

Exact Size



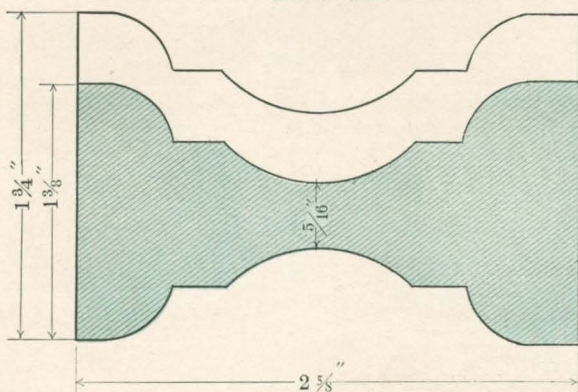
$2\frac{1}{2} \times 1\frac{1}{8}$ —6 lbs. per ft.

Sizes we roll

| Depth of beam, inches. | Width of flange, inches. | Thickness of web, inches. | Weight per foot, pounds. |
|----------------------------------|--------------------------|---------------------------|--------------------------|
| $2\frac{1}{2}$ | $1\frac{1}{8}$ | $\frac{3}{16}$ | 6.00 |
| | $1\frac{3}{16}$ | $\frac{1}{4}$ | 6.53 |
| | $1\frac{1}{4}$ | $\frac{5}{16}$ | 7.06 |
| | $1\frac{5}{16}$ | $\frac{3}{8}$ | 7.59 |
| | $1\frac{3}{8}$ | $\frac{7}{16}$ | 8.12 |
| | $1\frac{7}{16}$ | $\frac{1}{2}$ | 8.65 |
| | $1\frac{1}{2}$ | $\frac{9}{16}$ | 9.18 |
| | $1\frac{9}{16}$ | $\frac{5}{8}$ | 9.71 |
| | $1\frac{5}{8}$ | $\frac{11}{16}$ | 10.24 |
| | $1\frac{11}{16}$ | $\frac{3}{4}$ | 10.77 |
| | $1\frac{3}{4}$ | $\frac{13}{16}$ | 11.30 |

Open Hearth Steel Plow Beam Billets

No. 151
Exact Size

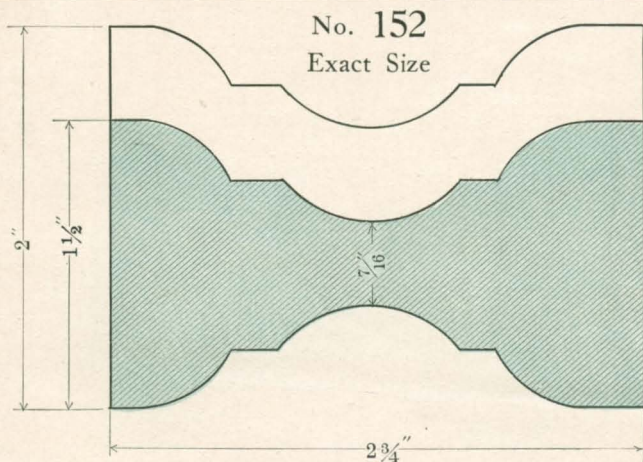


$2\frac{5}{8} \times 1\frac{3}{8} - 7\frac{3}{4}$ lbs. per foot.

Sizes we roll

| Depth of beam, inches. | Width of flange, inches. | Thickness of web, inches. | Weight per foot, pounds. |
|----------------------------------|--------------------------|---------------------------|--------------------------|
| $2\frac{5}{8}$ | $1\frac{3}{8}$ | $\frac{5}{16}$ | 7.75 |
| | $1\frac{7}{16}$ | $\frac{3}{8}$ | 8.31 |
| | $1\frac{1}{2}$ | $\frac{7}{16}$ | 8.87 |
| | $1\frac{9}{16}$ | $\frac{1}{2}$ | 9.43 |
| | $1\frac{5}{8}$ | $\frac{9}{16}$ | 10.00 |
| | $1\frac{11}{16}$ | $\frac{5}{8}$ | 10.55 |
| | $1\frac{3}{4}$ | $\frac{11}{16}$ | 11.10 |

Open Hearth Steel Plow Beam Billets



$2\frac{3}{4} \times 1\frac{1}{2} - 9\frac{1}{4}$ lbs. per ft.

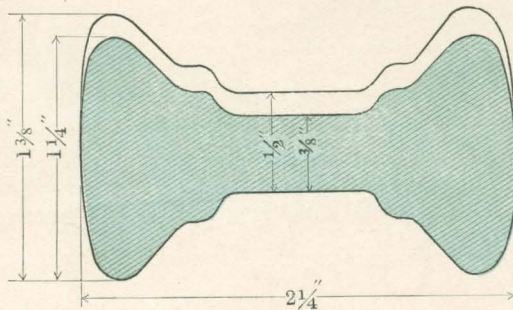
Sizes we roll

| Depth of beam, inches. | Width of flange, inches. | Thickness of web, inches. | Weight per foot, pounds. |
|----------------------------------|--------------------------------|---------------------------------|--------------------------------|
| 2$\frac{3}{4}$ | $1\frac{1}{2}$ | $\frac{7}{16}$ | 9.25 |
| | $1\frac{9}{16}$ | $\frac{1}{2}$ | 9.83 |
| | $1\frac{5}{8}$ | $\frac{9}{16}$ | 10.42 |
| | $1\frac{11}{16}$ | $\frac{5}{8}$ | 11.00 |
| | $1\frac{3}{4}$ | $\frac{11}{16}$ | 11.59 |
| | $1\frac{13}{16}$ | $\frac{3}{4}$ | 12.17 |
| | $1\frac{7}{8}$ | $\frac{13}{16}$ | 12.66 |
| | $1\frac{15}{16}$ | $\frac{7}{8}$ | 13.24 |
| | 2 | $\frac{15}{16}$ | 13.83 |

Open Hearth Steel Plow Beam Billets

No. 158

Exact Size



$2\frac{1}{4} \times 1\frac{1}{4} - 5\frac{1}{2}$ lbs. per ft.

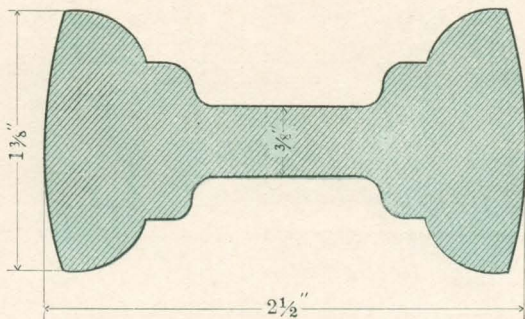
Sizes we roll

| Depth of beam, inches. | Width of flange, inches. | Thickness of web, inches. | Weight per foot, pounds. |
|----------------------------------|--------------------------|---------------------------|--------------------------|
| $2\frac{1}{4}$ | $1\frac{1}{4}$ | $\frac{3}{8}$ | 5.50 |
| | $1\frac{5}{16}$ | $\frac{7}{16}$ | 6.08 |
| | $1\frac{3}{8}$ | $\frac{1}{2}$ | 6.66 |

Open Hearth Steel
Plow Beam Billets

No. 159

Exact Size



$2\frac{1}{2} \times 1\frac{3}{8}$ —6.8 lbs. per ft.

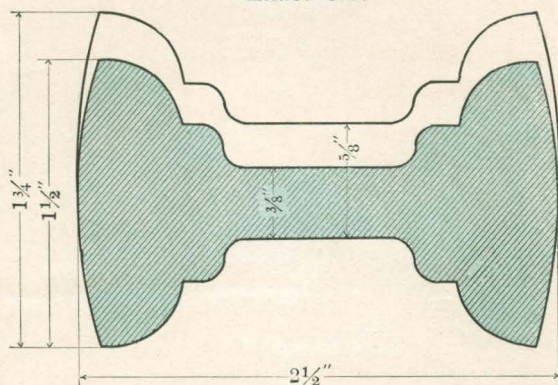
Sizes we roll

| Depth of beam, inches. | Width of flange, inches. | Thickness of web, inches. | Weight per foot, pounds. |
|------------------------|--------------------------|---------------------------|--------------------------|
| $2\frac{1}{2}$ | $1\frac{3}{8}$ | $\frac{3}{8}$ | 6.80 |

Open Hearth Steel Plow Beam Billets

No. 160

Exact Size

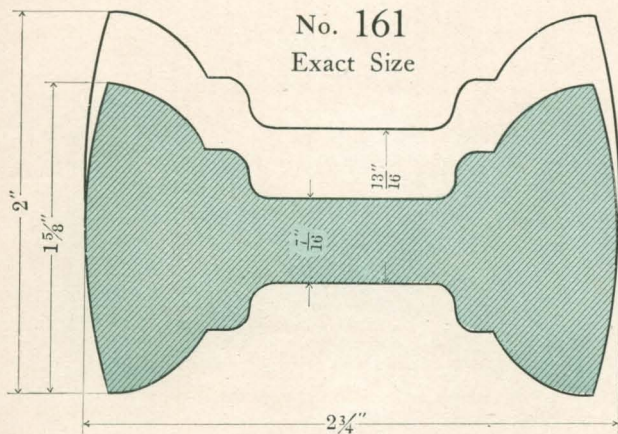


$2\frac{1}{2} \times 1\frac{1}{2}$ —7.14 lbs. per ft.

Sizes we roll

| Depth of beam, inches. | Width of flange, inches. | Thickness of web, inches. | Weight per foot, pounds. |
|----------------------------------|--------------------------------|---------------------------------|--------------------------------|
| $2\frac{1}{2}$ | $1\frac{1}{2}$ | $\frac{3}{8}$ | 7.14 |
| | $1\frac{9}{16}$ | $\frac{7}{16}$ | 7.67 |
| | $1\frac{5}{8}$ | $\frac{1}{2}$ | 8.20 |
| | $1\frac{11}{16}$ | $\frac{9}{16}$ | 8.73 |
| | $1\frac{3}{4}$ | $\frac{5}{8}$ | 9.26 |

Open Hearth Steel Plow Beam Billets



$2\frac{3}{4} \times 1\frac{5}{8}$ —8.94 lbs. per ft.

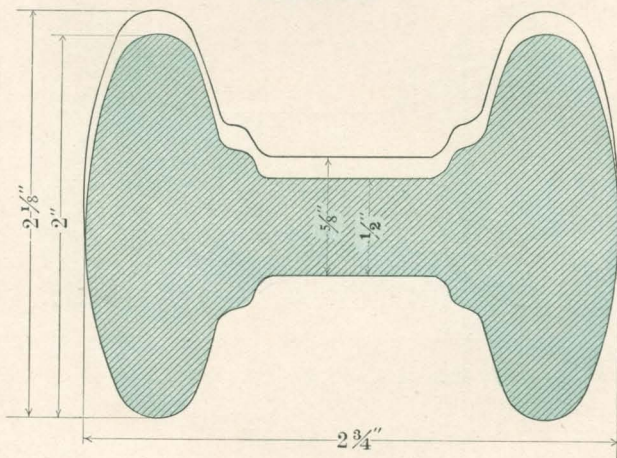
Sizes we roll

| Depth of beam, inches. | Width of flange, inches. | Thickness of web, inches. | Weight per foot, pounds. |
|----------------------------------|--------------------------------|---------------------------------|--------------------------------|
| $2\frac{3}{4}$ | $1\frac{5}{8}$ | $\frac{7}{16}$ | 8.94 |
| | $1\frac{11}{16}$ | $\frac{1}{2}$ | 9.53 |
| | $1\frac{3}{4}$ | $\frac{9}{16}$ | 10.11 |
| | $1\frac{13}{16}$ | $\frac{5}{8}$ | 10.69 |
| | $1\frac{7}{8}$ | $\frac{11}{16}$ | 11.28 |
| | $1\frac{15}{16}$ | $\frac{3}{4}$ | 11.86 |
| | 2 | $\frac{13}{16}$ | 12.45 |

Open Hearth Steel Plow Beam Billets

No. 162

Exact Size



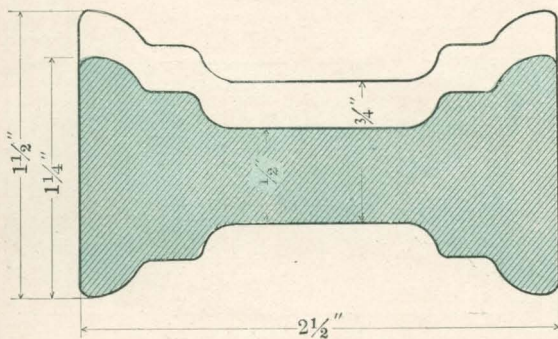
$2\frac{3}{4} \times 2$ —10.67 lbs. per ft.

Sizes we roll

| Depth of beam, inches. | Width of flange, inches. | Thickness of web, inches. | Weight per foot, pounds. |
|----------------------------------|--------------------------|---------------------------|--------------------------|
| $2\frac{3}{4}$ | 2 | $\frac{1}{2}$ | 10.67 |
| | $2\frac{1}{16}$ | $\frac{9}{16}$ | 11.15 |
| | $2\frac{1}{8}$ | $\frac{5}{8}$ | 11.75 |

Open Hearth Steel Plow Beam Billets

No. 170
Exact Size

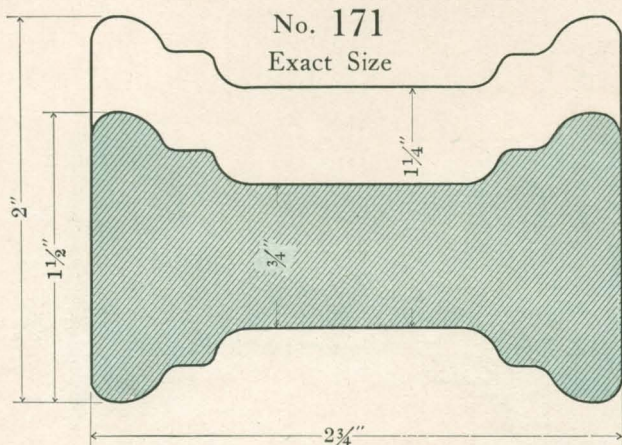


$2\frac{1}{2} \times 1\frac{1}{4}$ —6.8 lbs. per ft.

Sizes we roll

| Depth of beam, inches. | Width of flange, inches. | Thickness of web, inches. | Weight per foot, pounds. |
|------------------------|--------------------------------|-------------------------------|--------------------------|
| 2½ | 1¼ | ½ | 6.80 |
| | 1 ⁵ / ₁₆ | ⁹ / ₁₆ | 7.33 |
| | 1 ³ / ₈ | ⁵ / ₈ | 7.86 |
| | 1 ⁷ / ₁₆ | ¹¹ / ₁₆ | 8.39 |
| | 1½ | ¾ | 8.92 |

Open Hearth Steel Plow Beam Billets

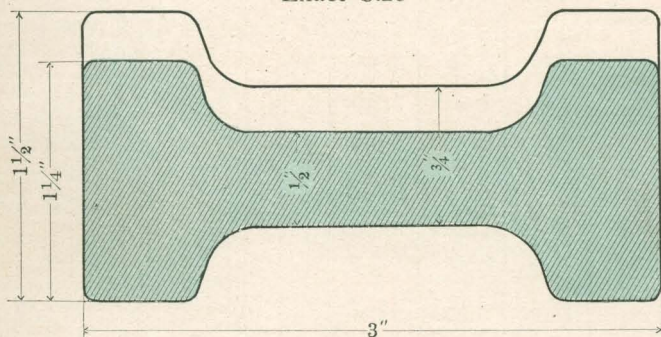


Sizes we roll

| Depth of beam, inches. | Width of flange, inches. | Thickness of web, inches. | Weight per foot, pounds. |
|----------------------------------|--------------------------------|---------------------------------|--------------------------------|
| $2\frac{3}{4}$ | $1\frac{1}{2}$ | $\frac{3}{4}$ | 9.35 |
| | $1\frac{9}{16}$ | $\frac{13}{16}$ | 9.93 |
| | $1\frac{5}{8}$ | $\frac{7}{8}$ | 10.52 |
| | $1\frac{11}{16}$ | $\frac{15}{16}$ | 11.10 |
| | $1\frac{3}{4}$ | 1 | 11.69 |
| | $1\frac{13}{16}$ | $1\frac{1}{16}$ | 12.27 |
| | $1\frac{7}{8}$ | $1\frac{1}{8}$ | 12.86 |
| | 2 | $1\frac{1}{4}$ | 14.00 |

Open Hearth Steel Plow Beam Billets

No. 180
Exact Size



3x1 $\frac{1}{4}$ —8.4 lbs. per ft.

Sizes we roll

| Depth of beam, inches. | Width of flange, inches. | Thickness of web, inches. | Weight per foot, pounds. |
|------------------------|--------------------------|---------------------------|--------------------------|
| 3 | 1 $\frac{1}{4}$ | $\frac{1}{2}$ | 8.40 |
| | 1 $\frac{5}{16}$ | $\frac{9}{16}$ | 9.04 |
| | 1 $\frac{3}{8}$ | $\frac{5}{8}$ | 9.68 |
| | 1 $\frac{7}{16}$ | $\frac{11}{16}$ | 10.31 |
| | 1 $\frac{1}{2}$ | $\frac{3}{4}$ | 10.95 |

Weights and Dimensions of Standard Steel I Beams

| Depth of beam inches | Weight per foot pounds | Thickness of web inches | Width of flange inches | Depth of beam inches | Weight per foot pounds | Thickness of web inches | Width of flange inches |
|----------------------|------------------------|-------------------------|------------------------|----------------------|------------------------|-------------------------|------------------------|
| 3 | 5.50 | 0.170 | 2.330 | 12 | 40.00 | 0.460 | 5.250 |
| | 6.50 | 0.263 | 2.423 | | 45.00 | 0.576 | 5.366 |
| | 7.50 | 0.361 | 2.521 | | 50.00 | 0.699 | 5.489 |
| 4 | 7.50 | 0.190 | 2.660 | 15 | 42.00 | 0.410 | 5.500 |
| | 8.50 | 0.263 | 2.733 | | 45.00 | 0.460 | 5.550 |
| | 9.50 | 0.337 | 2.807 | | 50.00 | 0.558 | 5.648 |
| 5 | 9.75 | 0.210 | 3.000 | 15 | 60.00 | 0.590 | 6.000 |
| | 12.25 | 0.357 | 3.147 | | 65.00 | 0.686 | 6.096 |
| | 14.75 | 0.504 | 3.294 | | 70.00 | 0.784 | 6.194 |
| 6 | 12.25 | 0.230 | 3.330 | 15 | 80.00 | 0.810 | 6.400 |
| | 14.75 | 0.352 | 3.452 | | 85.00 | 0.889 | 6.479 |
| | 17.25 | 0.475 | 3.575 | | 90.00 | 0.987 | 6.577 |
| 7 | 15.00 | 0.250 | 3.660 | 15 | 95.00 | 1.085 | 6.675 |
| | 17.50 | 0.353 | 3.763 | | 100.00 | 1.184 | 6.774 |
| | 20.00 | 0.458 | 3.868 | | 55.00 | 0.460 | 6.000 |
| 8 | 18.00 | 0.270 | 4.000 | 18 | 60.00 | 0.555 | 6.095 |
| | 20.50 | 0.357 | 4.087 | | 65.00 | 0.637 | 6.177 |
| | 23.00 | 0.449 | 4.179 | | 70.00 | 0.719 | 6.259 |
| 9 | 21.00 | 0.290 | 4.330 | 20 | 65.00 | 0.500 | 6.250 |
| | 25.00 | 0.406 | 4.446 | | 70.00 | 0.575 | 6.325 |
| | 30.00 | 0.569 | 4.609 | | 75.00 | 0.649 | 6.399 |
| 10 | 25.00 | 0.310 | 4.660 | 20 | 80.00 | 0.600 | 7.000 |
| | 30.00 | 0.455 | 4.805 | | 85.00 | 0.663 | 7.063 |
| | 35.00 | 0.732 | 4.772 | | 90.00 | 0.737 | 7.137 |
| 12 | 31.50 | 0.350 | 5.000 | 24 | 95.00 | 0.810 | 7.210 |
| | 35.00 | 0.436 | 5.086 | | 100.00 | 0.884 | 7.284 |
| | | | | | 80.00 | 0.500 | 7.000 |
| | | | | 85.00 | 0.570 | 7.070 | |
| | | | | 90.00 | 0.631 | 7.131 | |
| | | | | 95.00 | 0.692 | 7.192 | |
| | | | | 100.00 | 0.754 | 7.254 | |

Heavy figures indicate standard sections.
See pages 25 to 30 for details of sizes we roll.

Weights and Dimensions of Standard Steel Channels

| Depth of channels inches | Weight per foot pounds | Thickness of web inches | Width of flange inches | Depth of channels inches | Weight per foot pounds | Thickness of web inches | Width of flange inches |
|--------------------------|------------------------|-------------------------|------------------------|--------------------------|------------------------|-------------------------|------------------------|
| 3 | 4.00 | 0.170 | 1.410 | 8 | 18.75 | 0.490 | 2.530 |
| | 5.00 | 0.264 | 1.504 | | 21.25 | 0.582 | 2.622 |
| | 6.00 | 0.362 | 1.602 | | 13.25 | 0.230 | 2.430 |
| 4 | 5.25 | 0.180 | 1.580 | 9 | 15.00 | 0.288 | 2.488 |
| | 6.25 | 0.252 | 1.652 | | 20.00 | 0.452 | 2.652 |
| | 7.25 | 0.325 | 1.725 | | 25.00 | 0.615 | 2.815 |
| 5 | 6.50 | 0.190 | 1.750 | 10 | 15.00 | 0.240 | 2.600 |
| | 9.00 | 0.330 | 1.890 | | 20.00 | 0.382 | 2.742 |
| | 11.50 | 0.477 | 2.037 | | 25.00 | 0.529 | 2.889 |
| 6 | 8.00 | 0.200 | 1.920 | 12 | 30.00 | 0.676 | 3.036 |
| | 10.50 | 0.318 | 2.038 | | 35.00 | 0.823 | 3.183 |
| | 13.00 | 0.440 | 2.160 | | 20.50 | 0.280 | 2.940 |
| 7 | 9.75 | 0.210 | 2.090 | 15 | 25.00 | 0.390 | 3.050 |
| | 12.25 | 0.318 | 2.198 | | 30.00 | 0.513 | 3.173 |
| | 14.75 | 0.423 | 2.303 | | 35.00 | 0.636 | 3.296 |
| 8 | 11.25 | 0.220 | 2.260 | | 40.00 | 0.758 | 3.418 |
| | 13.75 | 0.307 | 2.347 | | 33.00 | 0.400 | 3.400 |
| | 16.25 | 0.399 | 2.439 | | 35.00 | 0.426 | 3.426 |
| | | | | | 40.00 | 0.524 | 3.524 |
| | | | | | 45.00 | 0.622 | 3.622 |
| | | | | | 50.00 | 0.720 | 3.720 |
| | | | | | 55.00 | 0.818 | 3.818 |

Heavy figures indicate standard sections.

For details of sizes we roll see pages 32 to 47.

Weights and Dimensions of Steel Angles

(With Fillet)

Per lineal foot in pounds

| Size in inches | Thickness in inches. | | | | | | | | | | | | | | |
|----------------|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 1/8 | 3/16 | 1/4 | 5/16 | 3/8 | 7/16 | 1/2 | 5/8 | 3/4 | 7/8 | 1 | 1 1/8 | 1 1/4 | 1 1/2 | |
| 5/8x 5/8 | 0.5 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 3/4x 3/4 | 0.6 | 0.9 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 7/8x 7/8 | 0.7 | 1.0 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 1 x x | 0.6 | 0.9 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 1 x 1 | 0.7 | 1.0 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 1 1/8x1 1/8 | 0.8 | 1.2 | 1.5 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 1 1/4x1 1/4 | 0.9 | 1.3 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 1 1/2x1 1/2 | 1.1 | 1.48 | 2.0 | 2.4 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 1 3/4x1 3/4 | 0.9 | 1.3 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 1 7/8x1 7/8 | 1.0 | ..... | 1.9 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 1 1/2x1 1/2 | 1.3 | 1.8 | 2.4 | 2.9 | 3.4 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 1 3/4x1 3/4 | 1.4 | 2.2 | 2.8 | 3.4 | 4.0 | 4.6 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 2 x1 1/2 | ..... | 2.1 | 2.7 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 2 x1 1/2 | ..... | 2.1 | 2.8 | 3.4 | 4.0 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 2 x2 | ..... | 1.7 | 2.5 | 3.2 | 4.0 | 4.7 | 5.3 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 2 1/4x1 1/2 | ..... | 2.3 | 3.0 | 3.7 | 4.4 | 5.0 | 5.6 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 2 1/4x2 1/4 | 1.9 | 2.8 | 3.7 | 4.5 | 5.3 | 6.1 | 6.8 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 2 1/2x1 1/2 | ..... | 2.4 | 3.2 | 3.9 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 2 1/2x1 3/4 | ..... | 2.6 | 3.4 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 2 1/2x2 | ..... | 2.8 | 3.7 | 4.5 | 5.3 | 6.1 | 6.8 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 2 1/2x2 1/2 | ..... | 2.1 | 3.1 | 4.1 | 5.0 | 5.9 | 6.8 | 7.7 | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 2 3/4x2 3/4 | ..... | 2.3 | 3.4 | 4.5 | 5.6 | 6.6 | 7.6 | 8.5 | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 3 x2 | ..... | 3.1 | 4.1 | 5.0 | 5.9 | 6.8 | 7.7 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 3 x2 1/2 | ..... | 3.4 | 4.5 | 5.6 | 6.6 | 7.6 | 8.5 | 9.5 | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 3 x3 | ..... | 2.5 | 3.7 | 4.9 | 6.1 | 7.2 | 8.3 | 9.4 | 10.4 | 11.5 | ..... | ..... | ..... | ..... | ..... |
| 3 1/4x2 | ..... | ..... | 4.3 | 5.3 | 6.3 | 7.2 | 8.1 | 9.0 | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 3 1/4x3 1/4 | ..... | ..... | ..... | ..... | 7.85 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 3 1/2x2 1/2 | ..... | ..... | 4.9 | 6.1 | 7.2 | 8.3 | 9.4 | 10.4 | 11.5 | 12.5 | ..... | ..... | ..... | ..... | ..... |
| 3 1/2x3 | ..... | ..... | ..... | 6.6 | 7.9 | 9.1 | 10.2 | 11.4 | 12.5 | 13.6 | 14.7 | 15.8 | ..... | ..... | ..... |
| 3 1/2x3 1/2 | ..... | ..... | 5.8 | 7.2 | 8.5 | 9.8 | 11.1 | 12.4 | 13.6 | 14.8 | 16.0 | 17.1 | ..... | ..... | ..... |
| 4 x3 | ..... | ..... | ..... | 7.2 | 8.5 | 9.8 | 11.1 | 12.4 | 13.6 | 14.8 | 16.0 | 17.1 | ..... | ..... | ..... |
| 4 x3 1/2 | ..... | ..... | ..... | 7.7 | 9.1 | 10.6 | 11.9 | 13.3 | 14.7 | 16.0 | 17.3 | ..... | ..... | ..... | ..... |
| 4 x4 | ..... | 5.2 | 6.6 | 8.2 | 9.8 | 11.3 | 12.8 | 14.3 | 15.7 | 17.1 | 18.5 | 19.9 | ..... | ..... | ..... |
| 4 1/2x3 | ..... | ..... | ..... | 7.7 | 9.1 | 10.6 | 11.9 | 13.3 | 14.7 | 16.0 | 17.3 | 18.5 | ..... | ..... | ..... |
| 5 x3 | ..... | ..... | ..... | 8.2 | 9.8 | 11.3 | 12.8 | 14.3 | 15.7 | 17.1 | 18.5 | 19.9 | ..... | ..... | ..... |
| 5 x3 1/2 | ..... | ..... | ..... | 8.7 | 10.4 | 12.0 | 13.6 | 15.2 | 16.8 | 18.3 | 19.8 | 21.3 | 22.7 | ..... | ..... |
| 5 x4 | ..... | ..... | ..... | ..... | 11.0 | 12.8 | 14.5 | 16.2 | 17.8 | 19.5 | 21.1 | 22.7 | 24.2 | ..... | ..... |
| 5 x4 1/2 | ..... | ..... | ..... | ..... | ..... | 12.3 | 14.3 | 16.2 | 18.1 | 20.0 | 21.8 | 23.6 | 25.4 | 27.2 | 28.9 |
| 6 x3 1/2 | ..... | ..... | ..... | ..... | ..... | 11.7 | 13.5 | 15.3 | 17.1 | 18.9 | 20.6 | 22.4 | 24.0 | 25.7 | 27.3 |
| 6 x4 | ..... | ..... | ..... | ..... | ..... | 12.3 | 14.3 | 16.2 | 18.1 | 20.0 | 21.8 | 23.6 | 25.4 | 27.2 | 28.9 |
| 6 x6 | ..... | ..... | ..... | ..... | ..... | 14.9 | 17.2 | 19.6 | 21.9 | 24.2 | 26.5 | 28.7 | 31.0 | 33.1 | 35.3 |
| 7 x3 1/2 | ..... | ..... | ..... | ..... | ..... | ..... | 15.0 | 17.0 | 19.1 | 21.0 | 23.0 | 24.9 | 26.8 | 28.7 | 30.5 |
| 8 x8 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 26.4 | 29.6 | 32.7 | 35.8 | 38.9 | 42.0 | 45.0 | 48.1 |

See pages 48 to 63 for details of sizes we roll.

Weights per lineal foot of Flat Rolled Steel Bars

1 cubic foot weighing 489.6 lbs.

| Thickness, inches. | WIDTH, IN INCHES. | | | | | | | | |
|-----------------------|-------------------|-------|-------|-------|-------|--------|--------|--------|-------|
| | ½ in. | ⅝ in. | ¾ in. | ⅞ in. | 1 in. | 1¼ in. | 1½ in. | 1¾ in. | 2 in. |
| ⅛ | .2125 | .2656 | .3188 | .3720 | .425 | .531 | .638 | .744 | .849 |
| 1/16 | .319 | .399 | .478 | .558 | .638 | .797 | .957 | 1.15 | 1.28 |
| ¼ | .425 | .531 | .636 | .743 | .850 | 1.06 | 1.28 | 1.49 | 1.70 |
| 5/16 | .531 | .664 | .797 | .929 | 1.06 | 1.33 | 1.59 | 1.86 | 2.12 |
| 3/8 | .638 | .797 | .957 | 1.116 | 1.28 | 1.59 | 1.92 | 2.23 | 2.55 |
| 7/16 | .744 | .929 | 1.116 | 1.302 | 1.49 | 1.86 | 2.23 | 2.60 | 2.98 |
| ½ | .850 | 1.06 | 1.275 | 1.487 | 1.70 | 2.12 | 2.55 | 2.98 | 3.40 |
| 9/16 | .957 | 1.20 | 1.434 | 1.674 | 1.92 | 2.39 | 2.87 | 3.35 | 3.83 |
| 5/8 | 1.06 | 1.33 | 1.594 | 1.859 | 2.12 | 2.65 | 3.19 | 3.72 | 4.25 |
| 11/16 | 1.17 | 1.46 | 1.753 | 2.045 | 2.34 | 2.92 | 3.51 | 4.09 | 4.67 |
| ¾ | 1.28 | 1.60 | 1.913 | 2.232 | 2.55 | 3.19 | 3.83 | 4.47 | 5.10 |
| 13/16 | 1.38 | 1.73 | 2.072 | 2.417 | 2.76 | 3.45 | 4.14 | 4.84 | 5.53 |
| 7/8 | 1.49 | 1.86 | 2.232 | 2.604 | 2.98 | 3.72 | 4.47 | 5.20 | 5.95 |
| 15/16 | 1.60 | 1.99 | 2.391 | 2.789 | 3.19 | 3.99 | 4.78 | 5.58 | 6.38 |
| 1 | 1.70 | 2.13 | 2.55 | 2.98 | 3.40 | 4.25 | 5.10 | 5.95 | 6.80 |
| 1/16 | 1.81 | 2.26 | 2.710 | 3.161 | 3.61 | 4.52 | 5.42 | 6.32 | 7.22 |
| 1/8 | 1.91 | 2.39 | 2.868 | 3.347 | 3.83 | 4.78 | 5.74 | 6.70 | 7.65 |
| 3/16 | 2.02 | 2.52 | 3.03 | 3.533 | 4.04 | 5.05 | 6.06 | 7.07 | 8.08 |
| ¼ | 2.12 | 2.66 | 3.19 | 3.72 | 4.25 | 5.31 | 6.38 | 7.44 | 8.50 |
| 5/16 | 2.23 | 2.79 | 3.35 | 3.91 | 4.46 | 5.58 | 6.69 | 7.81 | 8.93 |
| 3/8 | 2.34 | 2.92 | 3.51 | 4.09 | 4.67 | 5.84 | 7.02 | 8.18 | 9.35 |
| 7/16 | 2.45 | 3.06 | 3.67 | 4.28 | 4.89 | 6.11 | 7.34 | 8.56 | 9.78 |
| ½ | 2.55 | 3.19 | 3.83 | 4.47 | 5.10 | 6.38 | 7.65 | 8.93 | 10.20 |
| 9/16 | 2.66 | 3.32 | 3.99 | 4.65 | 5.32 | 6.64 | 7.97 | 9.30 | 10.63 |
| 5/8 | 2.76 | 3.45 | 4.15 | 4.84 | 5.52 | 6.90 | 8.29 | 9.67 | 11.05 |
| 11/16 | 2.87 | 3.59 | 4.31 | 5.02 | 5.74 | 7.17 | 8.61 | 10.04 | 11.47 |
| ¾ | 2.98 | 3.72 | 4.47 | 5.21 | 5.95 | 7.44 | 8.93 | 10.42 | 11.90 |
| 13/16 | 3.08 | 3.85 | 4.62 | 5.466 | 6.16 | 7.70 | 9.24 | 10.79 | 12.33 |
| 1/8 | 3.19 | 3.99 | 4.79 | 5.58 | 6.38 | 7.97 | 9.57 | 11.15 | 12.75 |
| 15/16 | 3.30 | 4.12 | 4.94 | 5.77 | 6.59 | 8.24 | 9.88 | 11.53 | 13.18 |
| 2 | 3.40 | 4.25 | 5.10 | 5.95 | 6.80 | 8.50 | 10.20 | 11.90 | 13.60 |

Weights per lineal foot of Flat Rolled Steel Bars

Continued

1 cubic foot weighing 489.6 lbs.

| Thickness, inches. | WIDTH, IN INCHES. | | | | | | | | |
|-----------------------|-------------------|--------|--------|-------|--------|--------|--------|-------|--------|
| | 2¼ in. | 2½ in. | 2¾ in. | 3 in. | 3¼ in. | 3½ in. | 3¾ in. | 4 in. | 4¼ in. |
| ⅛ | .956 | 1.06 | 1.17 | 1.28 | 1.38 | 1.49 | 1.59 | 1.70 | 1.81 |
| 1/16 | 1.44 | 1.59 | 1.75 | 1.91 | 2.07 | 2.23 | 2.39 | 2.55 | 2.71 |
| ¼ | 1.91 | 2.12 | 2.34 | 2.55 | 2.76 | 2.98 | 3.19 | 3.40 | 3.61 |
| 5/16 | 2.39 | 2.65 | 2.92 | 3.19 | 3.45 | 3.72 | 3.99 | 4.25 | 4.52 |
| 3/8 | 2.87 | 3.19 | 3.51 | 3.83 | 4.15 | 4.47 | 4.78 | 5.10 | 5.42 |
| 7/16 | 3.35 | 3.72 | 4.09 | 4.46 | 4.83 | 5.20 | 5.58 | 5.95 | 6.32 |
| ½ | 3.83 | 4.25 | 4.67 | 5.10 | 5.53 | 5.95 | 6.38 | 6.80 | 7.22 |
| 9/16 | 4.30 | 4.78 | 5.26 | 5.74 | 6.22 | 6.70 | 7.17 | 7.65 | 8.13 |
| 5/8 | 4.78 | 5.31 | 5.84 | 6.38 | 6.91 | 7.44 | 7.97 | 8.50 | 9.03 |
| 11/16 | 5.26 | 5.84 | 6.43 | 7.02 | 7.60 | 8.18 | 8.76 | 9.35 | 9.93 |
| ¾ | 5.75 | 6.38 | 7.02 | 7.65 | 8.29 | 8.93 | 9.57 | 10.20 | 10.84 |
| 13/16 | 6.21 | 6.90 | 7.60 | 8.29 | 8.98 | 9.67 | 10.36 | 11.05 | 11.74 |
| 7/8 | 6.69 | 7.44 | 8.18 | 8.93 | 9.67 | 10.41 | 11.16 | 11.90 | 12.65 |
| 15/16 | 7.18 | 7.97 | 8.77 | 9.57 | 10.36 | 11.16 | 11.95 | 12.75 | 13.55 |
| 1 | 7.65 | 8.50 | 9.35 | 10.20 | 11.05 | 11.90 | 12.75 | 13.60 | 14.45 |
| 1 1/16 | 8.13 | 9.03 | 9.93 | 10.84 | 11.74 | 12.65 | 13.55 | 14.45 | 15.35 |
| 1 1/8 | 8.61 | 9.57 | 10.52 | 11.48 | 12.43 | 13.39 | 14.34 | 15.30 | 16.26 |
| 1 1/16 | 9.09 | 10.10 | 11.11 | 12.12 | 13.12 | 14.13 | 15.14 | 16.15 | 17.16 |
| 1 ¼ | 9.57 | 10.63 | 11.69 | 12.75 | 13.81 | 14.87 | 15.94 | 17.00 | 18.06 |
| 1 5/16 | 10.04 | 11.16 | 12.27 | 13.39 | 14.50 | 15.62 | 16.74 | 17.85 | 18.96 |
| 1 3/8 | 10.52 | 11.69 | 12.85 | 14.03 | 15.20 | 16.36 | 17.53 | 18.70 | 19.87 |
| 1 7/16 | 11.00 | 12.22 | 13.44 | 14.66 | 15.88 | 17.10 | 18.33 | 19.55 | 20.77 |
| 1 ½ | 11.48 | 12.75 | 14.03 | 15.30 | 16.58 | 17.85 | 19.13 | 20.40 | 21.68 |
| 1 9/16 | 11.95 | 13.28 | 14.61 | 15.94 | 17.27 | 18.60 | 19.92 | 21.25 | 22.58 |
| 1 5/8 | 12.43 | 13.81 | 15.19 | 16.58 | 17.96 | 19.34 | 20.72 | 22.10 | 23.48 |
| 1 11/16 | 12.91 | 14.34 | 15.78 | 17.22 | 18.65 | 20.08 | 21.51 | 22.95 | 24.38 |
| 1 ¾ | 13.40 | 14.88 | 16.37 | 17.85 | 19.34 | 20.83 | 22.32 | 23.80 | 25.29 |
| 1 13/16 | 13.86 | 15.40 | 16.95 | 18.49 | 20.03 | 21.57 | 23.11 | 24.65 | 26.19 |
| 1 7/8 | 14.34 | 15.94 | 17.53 | 19.13 | 20.72 | 22.31 | 23.91 | 25.50 | 27.10 |
| 1 15/16 | 14.83 | 16.47 | 18.12 | 19.77 | 21.41 | 23.06 | 24.70 | 26.35 | 28.00 |
| 2 | 15.30 | 17.00 | 18.70 | 20.40 | 22.10 | 23.80 | 25.50 | 27.20 | 28.90 |

Weights per lineal foot of Flat Rolled Steel Bars

Continued

1 cubic foot weighing 489.6 lbs.

| Thickness, inches. | WIDTH, IN INCHES. | | | | | | | | |
|-----------------------|-------------------|---------|-------|---------|---------|---------|-------|---------|---------|
| | 4 ½ in. | 4 ¾ in. | 5 in. | 5 ¼ in. | 5 ½ in. | 5 ¾ in. | 6 in. | 6 ¼ in. | 6 ½ in. |
| ⅛ | 1.92 | 2.02 | 2.12 | 2.23 | 2.34 | 2.45 | 2.55 | 2.65 | 2.76 |
| ⅜ | 2.87 | 3.03 | 3.19 | 3.35 | 3.51 | 3.67 | 3.83 | 3.99 | 4.14 |
| ¼ | 3.83 | 4.04 | 4.25 | 4.46 | 4.67 | 4.89 | 5.10 | 5.31 | 5.53 |
| ⅝ | 4.78 | 5.05 | 5.31 | 5.58 | 5.84 | 6.11 | 6.38 | 6.64 | 6.90 |
| ⅞ | 5.74 | 6.06 | 6.38 | 6.69 | 7.02 | 7.34 | 7.65 | 7.97 | 8.29 |
| ⅞ | 6.70 | 7.07 | 7.44 | 7.81 | 8.18 | 8.56 | 8.93 | 9.29 | 9.67 |
| ½ | 7.65 | 8.08 | 8.50 | 8.93 | 9.35 | 9.77 | 10.20 | 10.63 | 11.05 |
| ⅝ | 8.61 | 9.09 | 9.57 | 10.04 | 10.52 | 11.00 | 11.48 | 11.95 | 12.43 |
| ⅞ | 9.57 | 10.10 | 10.63 | 11.16 | 11.69 | 12.22 | 12.75 | 13.28 | 13.81 |
| ⅞ | 10.52 | 11.11 | 11.69 | 12.27 | 12.85 | 13.44 | 14.03 | 14.61 | 15.20 |
| ¾ | 11.48 | 12.12 | 12.75 | 13.39 | 14.03 | 14.67 | 15.30 | 15.94 | 16.58 |
| ⅞ | 12.43 | 13.12 | 13.81 | 14.50 | 15.19 | 15.88 | 16.58 | 17.27 | 17.95 |
| ⅞ | 13.39 | 14.13 | 14.87 | 15.62 | 16.36 | 17.10 | 17.85 | 18.60 | 19.34 |
| ⅞ | 14.34 | 15.14 | 15.94 | 16.74 | 17.53 | 18.33 | 19.13 | 19.92 | 20.72 |
| 1 | 15.30 | 16.15 | 17.00 | 17.85 | 18.70 | 19.55 | 20.40 | 21.25 | 22.10 |
| 1 ⅛ | 16.26 | 17.16 | 18.06 | 18.96 | 19.87 | 20.77 | 21.68 | 22.58 | 23.48 |
| 1 ⅜ | 17.22 | 18.17 | 19.13 | 20.08 | 21.04 | 21.99 | 22.95 | 23.91 | 24.87 |
| 1 ⅝ | 18.17 | 19.18 | 20.19 | 21.20 | 22.21 | 23.22 | 24.23 | 25.23 | 26.24 |
| 1 ¾ | 19.13 | 20.19 | 21.25 | 22.32 | 23.38 | 24.44 | 25.50 | 26.56 | 27.62 |
| 1 ⅝ | 20.08 | 21.20 | 22.32 | 23.43 | 24.54 | 25.66 | 26.78 | 27.90 | 29.01 |
| 1 ⅞ | 21.04 | 22.21 | 23.38 | 24.54 | 25.71 | 26.88 | 28.05 | 29.22 | 30.39 |
| 1 ⅞ | 21.99 | 23.22 | 24.44 | 25.66 | 26.88 | 28.10 | 29.33 | 30.55 | 31.77 |
| 1 ½ | 22.95 | 24.23 | 25.50 | 26.78 | 28.05 | 29.33 | 30.60 | 31.88 | 33.15 |
| 1 ⅝ | 23.91 | 25.24 | 26.57 | 27.89 | 29.22 | 30.55 | 31.88 | 33.20 | 34.53 |
| 1 ⅞ | 24.87 | 26.25 | 27.63 | 29.01 | 30.39 | 31.77 | 33.15 | 34.53 | 35.91 |
| 1 ⅞ | 25.82 | 27.26 | 28.69 | 30.12 | 31.55 | 32.99 | 34.43 | 35.86 | 37.30 |
| 1 ¾ | 26.78 | 28.27 | 29.75 | 31.24 | 32.73 | 34.22 | 35.70 | 37.19 | 38.68 |
| 1 ⅞ | 27.73 | 29.27 | 30.81 | 32.35 | 33.89 | 35.43 | 36.98 | 38.52 | 40.05 |
| 1 ⅞ | 28.69 | 30.28 | 31.87 | 33.47 | 35.06 | 36.65 | 38.25 | 39.85 | 41.44 |
| 1 ⅞ | 29.64 | 31.29 | 32.94 | 34.59 | 36.23 | 37.88 | 39.53 | 41.17 | 42.82 |
| 2 | 30.60 | 32.30 | 34.00 | 35.70 | 37.40 | 39.10 | 40.80 | 42.50 | 44.20 |

Weights per lineal foot of Flat Rolled Steel Bars

Continued

1 cubic foot weighing 489.6 lbs.

| Thickness, inches. | WIDTH, IN INCHES. | | | | | | | | |
|-----------------------|-------------------|-------|--------|--------|--------|-------|--------|--------|--------|
| | 6¾ in. | 7 in. | 7¼ in. | 7½ in. | 7¾ in. | 8 in. | 8¼ in. | 8½ in. | 8¾ in. |
| 1/8 | 2.83 | 2.98 | 3.08 | 3.18 | 3.29 | 3.40 | 3.50 | 3.62 | 3.72 |
| 3/16 | 4.30 | 4.46 | 4.62 | 4.78 | 4.94 | 5.10 | 5.26 | 5.42 | 5.58 |
| 1/4 | 5.74 | 5.95 | 6.16 | 6.36 | 6.58 | 6.80 | 7.01 | 7.22 | 7.43 |
| 5/16 | 7.17 | 7.44 | 7.70 | 7.97 | 8.23 | 8.50 | 8.76 | 9.03 | 9.29 |
| 3/8 | 8.61 | 8.93 | 9.25 | 9.57 | 9.88 | 10.20 | 10.52 | 10.84 | 11.16 |
| 7/16 | 10.04 | 10.41 | 10.78 | 11.16 | 11.53 | 11.90 | 12.27 | 12.64 | 13.02 |
| 1/2 | 11.48 | 11.90 | 12.32 | 12.75 | 13.18 | 13.60 | 14.03 | 14.44 | 14.87 |
| 9/16 | 12.91 | 13.39 | 13.86 | 14.34 | 14.82 | 15.30 | 15.78 | 16.26 | 16.74 |
| 5/8 | 14.34 | 14.87 | 15.40 | 15.94 | 16.47 | 17.00 | 17.53 | 18.06 | 18.59 |
| 11/16 | 15.78 | 16.36 | 16.94 | 17.53 | 18.12 | 18.70 | 19.28 | 19.86 | 20.45 |
| 3/4 | 17.22 | 17.85 | 18.49 | 19.13 | 19.77 | 20.40 | 21.04 | 21.68 | 22.32 |
| 13/16 | 18.65 | 19.34 | 20.03 | 20.72 | 21.41 | 22.10 | 22.79 | 23.48 | 24.17 |
| 7/8 | 20.08 | 20.83 | 21.57 | 22.32 | 23.05 | 23.80 | 24.55 | 25.30 | 26.04 |
| 15/16 | 21.51 | 22.32 | 23.11 | 23.91 | 24.70 | 25.50 | 26.30 | 27.10 | 27.89 |
| 1 | 22.95 | 23.80 | 24.65 | 25.50 | 26.35 | 27.20 | 28.05 | 28.90 | 29.75 |
| 1 1/16 | 24.39 | 25.29 | 26.19 | 27.10 | 28.00 | 28.90 | 29.80 | 30.70 | 31.61 |
| 1 1/8 | 25.82 | 26.78 | 27.73 | 28.68 | 29.64 | 30.60 | 31.56 | 32.52 | 33.47 |
| 1 3/16 | 27.25 | 28.26 | 29.27 | 30.28 | 31.29 | 32.30 | 33.31 | 34.32 | 35.33 |
| 1 1/4 | 28.69 | 29.75 | 30.81 | 31.88 | 32.94 | 34.00 | 35.06 | 36.12 | 37.20 |
| 1 5/16 | 30.12 | 31.23 | 32.35 | 33.48 | 34.59 | 35.70 | 36.81 | 37.93 | 39.05 |
| 1 3/8 | 31.56 | 32.72 | 33.89 | 35.06 | 36.23 | 37.40 | 38.57 | 39.74 | 40.91 |
| 1 7/16 | 32.99 | 34.21 | 35.44 | 36.66 | 37.88 | 39.10 | 40.32 | 41.54 | 42.77 |
| 1 1/2 | 34.43 | 35.70 | 36.98 | 38.26 | 39.53 | 40.80 | 42.08 | 43.35 | 44.63 |
| 1 9/16 | 35.86 | 37.19 | 38.51 | 39.84 | 41.17 | 42.50 | 43.83 | 45.16 | 46.49 |
| 1 5/8 | 37.29 | 38.67 | 40.05 | 41.44 | 42.82 | 44.20 | 45.58 | 46.96 | 48.34 |
| 1 11/16 | 38.73 | 40.16 | 41.59 | 43.03 | 44.47 | 45.90 | 47.33 | 48.76 | 50.20 |
| 1 3/4 | 40.17 | 41.65 | 43.14 | 44.63 | 46.12 | 47.60 | 49.09 | 50.58 | 52.07 |
| 1 13/16 | 41.60 | 43.14 | 44.68 | 46.22 | 47.76 | 49.30 | 50.84 | 52.38 | 53.92 |
| 1 7/8 | 43.03 | 44.63 | 46.22 | 47.82 | 49.40 | 51.00 | 52.60 | 54.20 | 55.79 |
| 1 15/16 | 44.46 | 46.12 | 47.76 | 49.41 | 51.05 | 52.70 | 54.35 | 56.00 | 57.64 |
| 2 | 45.90 | 47.60 | 49.30 | 51.00 | 52.70 | 54.40 | 56.10 | 57.80 | 59.50 |

Weights per lineal foot of Flat Rolled Steel Bars

Continued

1 cubic foot weighing 489.6 lbs.

| Thickness, inches. | WIDTH, IN INCHES. | | | | | | | | |
|-----------------------|-------------------|---------|---------|---------|--------|----------|----------|----------|--------|
| | 9 in. | 9 ¼ in. | 9 ½ in. | 9 ¾ in. | 10 in. | 10 ¼ in. | 10 ½ in. | 10 ¾ in. | 11 in. |
| 1/8 | 3.83 | 3.92 | 4.04 | 4.14 | 4.25 | 4.36 | 4.46 | 4.56 | 4.67 |
| 3/16 | 5.74 | 5.90 | 6.06 | 6.22 | 6.38 | 6.54 | 6.70 | 6.86 | 7.02 |
| 1/4 | 7.65 | 7.86 | 8.08 | 8.29 | 8.50 | 8.71 | 8.92 | 9.14 | 9.34 |
| 5/16 | 9.56 | 9.83 | 10.10 | 10.36 | 10.62 | 10.89 | 11.16 | 11.42 | 11.68 |
| 3/8 | 11.48 | 11.80 | 12.12 | 12.44 | 12.75 | 13.07 | 13.39 | 13.71 | 14.03 |
| 7/16 | 13.40 | 13.76 | 14.14 | 14.51 | 14.88 | 15.25 | 15.62 | 15.99 | 16.36 |
| 1/2 | 15.30 | 15.73 | 16.16 | 16.58 | 17.00 | 17.42 | 17.85 | 18.28 | 18.70 |
| 9/16 | 17.22 | 17.69 | 18.18 | 18.65 | 19.14 | 19.61 | 20.08 | 20.56 | 21.02 |
| 5/8 | 19.13 | 19.65 | 20.19 | 20.72 | 21.25 | 21.78 | 22.32 | 22.85 | 23.38 |
| 11/16 | 21.04 | 21.62 | 22.21 | 22.79 | 23.38 | 23.96 | 24.54 | 25.13 | 25.70 |
| 3/4 | 22.96 | 23.59 | 24.23 | 24.86 | 25.50 | 26.14 | 26.78 | 27.42 | 28.05 |
| 13/16 | 24.86 | 25.55 | 26.24 | 26.94 | 27.62 | 28.32 | 29.00 | 29.69 | 30.40 |
| 7/8 | 26.78 | 27.52 | 28.26 | 29.01 | 29.75 | 30.50 | 31.24 | 31.98 | 32.72 |
| 15/16 | 28.69 | 29.49 | 30.28 | 31.08 | 31.88 | 32.67 | 33.48 | 34.28 | 35.06 |
| 1 | 30.60 | 31.45 | 32.30 | 33.15 | 34.00 | 34.85 | 35.70 | 36.55 | 37.40 |
| 1 1/16 | 32.52 | 33.41 | 34.32 | 35.22 | 36.12 | 37.03 | 37.92 | 38.83 | 39.74 |
| 1 1/8 | 34.43 | 35.38 | 36.34 | 37.29 | 38.25 | 39.21 | 40.17 | 41.12 | 42.08 |
| 1 3/16 | 36.34 | 37.35 | 38.36 | 39.37 | 40.38 | 41.39 | 42.40 | 43.40 | 44.42 |
| 1 1/4 | 38.26 | 39.31 | 40.37 | 41.44 | 42.50 | 43.56 | 44.63 | 45.69 | 46.76 |
| 1 5/16 | 40.16 | 41.28 | 42.40 | 43.52 | 44.64 | 45.75 | 46.86 | 47.97 | 49.08 |
| 1 3/8 | 42.08 | 43.25 | 44.41 | 45.58 | 46.75 | 47.92 | 49.08 | 50.25 | 51.42 |
| 1 7/16 | 44.00 | 45.22 | 46.44 | 47.66 | 48.88 | 50.10 | 51.32 | 52.54 | 53.76 |
| 1 1/2 | 45.90 | 47.18 | 48.45 | 49.73 | 51.00 | 52.28 | 53.55 | 54.83 | 56.10 |
| 1 9/16 | 47.82 | 49.14 | 50.48 | 51.80 | 53.14 | 54.46 | 55.78 | 57.11 | 58.42 |
| 1 5/8 | 49.73 | 51.10 | 52.49 | 53.87 | 55.25 | 56.63 | 58.02 | 59.40 | 60.78 |
| 1 11/16 | 51.64 | 53.07 | 54.51 | 55.94 | 57.38 | 58.81 | 60.24 | 61.68 | 63.10 |
| 1 3/4 | 53.56 | 55.04 | 56.53 | 58.01 | 59.50 | 60.99 | 62.48 | 63.97 | 65.45 |
| 1 13/16 | 55.46 | 57.00 | 58.54 | 60.09 | 61.62 | 63.17 | 64.70 | 66.24 | 67.80 |
| 1 7/8 | 57.38 | 58.97 | 60.56 | 62.16 | 63.75 | 65.35 | 66.94 | 68.53 | 70.12 |
| 1 15/16 | 59.29 | 60.94 | 62.58 | 64.23 | 65.88 | 67.52 | 69.18 | 70.83 | 72.46 |
| 2 | 61.20 | 62.90 | 64.60 | 66.30 | 68.00 | 69.70 | 71.40 | 73.10 | 74.80 |

Weights per lineal foot of Flat Rolled Steel Bars

Continued

1 cubic foot weighing 489.6 lbs.

| Thickness, inches. | WIDTH, IN INCHES. | | | | | | | | |
|-----------------------|-------------------|----------|----------|--------|----------|----------|----------|--------|----------|
| | 11 ¼ in. | 11 ½ in. | 11 ¾ in. | 12 in. | 12 ¼ in. | 12 ½ in. | 12 ¾ in. | 13 in. | 13 ½ in. |
| | 1/8 | 4.79 | 4.90 | 5.00 | 5.10 | 5.20 | 5.31 | 5.41 | 5.52 | 5.74 |
| 3/16 | 7.17 | 7.32 | 7.49 | 7.65 | 7.82 | 7.98 | 8.13 | 8.28 | 8.61 |
| 1/4 | 9.57 | 9.78 | 10.00 | 10.20 | 10.42 | 10.63 | 10.84 | 11.06 | 11.48 |
| 5/16 | 11.95 | 12.22 | 12.49 | 12.75 | 13.01 | 13.28 | 13.55 | 13.81 | 14.34 |
| 3/8 | 14.35 | 14.68 | 14.99 | 15.30 | 15.62 | 15.94 | 16.26 | 16.58 | 17.22 |
| 7/16 | 16.74 | 17.12 | 17.49 | 17.85 | 18.23 | 18.60 | 18.97 | 19.34 | 20.08 |
| 1/2 | 19.13 | 19.55 | 19.97 | 20.40 | 20.82 | 21.25 | 21.67 | 22.10 | 22.95 |
| 9/16 | 21.51 | 22.00 | 22.48 | 22.95 | 23.43 | 23.90 | 24.39 | 24.86 | 25.82 |
| 5/8 | 23.91 | 24.44 | 24.97 | 25.50 | 26.03 | 26.56 | 27.09 | 27.62 | 28.69 |
| 11/16 | 26.30 | 26.88 | 27.47 | 28.05 | 28.64 | 29.22 | 29.80 | 30.39 | 31.56 |
| 3/4 | 28.68 | 29.33 | 29.97 | 30.60 | 31.25 | 31.88 | 32.52 | 33.16 | 34.43 |
| 13/16 | 31.08 | 31.76 | 32.46 | 33.15 | 33.83 | 34.53 | 35.22 | 35.91 | 37.29 |
| 7/8 | 33.47 | 34.21 | 34.95 | 35.70 | 36.44 | 37.19 | 37.93 | 38.68 | 40.17 |
| 15/16 | 35.86 | 36.66 | 37.46 | 38.25 | 39.05 | 39.84 | 40.64 | 41.44 | 43.03 |
| 1 | 38.25 | 39.10 | 39.95 | 40.80 | 41.65 | 42.50 | 43.35 | 44.20 | 45.90 |
| 1 1/16 | 40.64 | 41.54 | 42.45 | 43.35 | 44.25 | 45.16 | 46.06 | 46.96 | 48.76 |
| 1 1/8 | 43.04 | 44.00 | 44.94 | 45.90 | 46.86 | 47.82 | 48.77 | 49.72 | 51.52 |
| 1 3/16 | 45.42 | 46.44 | 47.45 | 48.45 | 49.46 | 50.46 | 51.48 | 52.48 | 54.51 |
| 1 1/4 | 47.82 | 48.88 | 49.94 | 51.00 | 52.06 | 53.12 | 54.19 | 55.25 | 57.38 |
| 1 5/16 | 50.20 | 51.32 | 52.44 | 53.55 | 54.67 | 55.78 | 56.90 | 58.02 | 60.25 |
| 1 3/8 | 52.59 | 53.76 | 54.93 | 56.10 | 57.27 | 58.44 | 59.60 | 60.77 | 63.11 |
| 1 7/16 | 54.99 | 56.21 | 57.43 | 58.65 | 59.87 | 61.10 | 62.32 | 63.54 | 65.98 |
| 1 1/2 | 57.37 | 58.65 | 59.93 | 61.20 | 62.48 | 63.75 | 65.03 | 66.30 | 68.86 |
| 1 9/16 | 59.76 | 61.10 | 62.43 | 63.75 | 65.08 | 66.40 | 67.74 | 69.06 | 71.72 |
| 1 5/8 | 62.16 | 63.54 | 64.92 | 66.30 | 67.68 | 69.06 | 70.44 | 71.83 | 74.59 |
| 1 11/16 | 64.55 | 65.98 | 67.42 | 68.85 | 70.29 | 71.72 | 73.15 | 74.59 | 77.46 |
| 1 3/4 | 66.93 | 68.43 | 69.92 | 71.40 | 72.90 | 74.38 | 75.87 | 77.35 | 80.83 |
| 1 13/16 | 69.33 | 70.86 | 72.41 | 73.95 | 75.48 | 77.03 | 78.57 | 80.11 | 83.20 |
| 1 7/8 | 71.72 | 73.31 | 74.90 | 76.50 | 78.09 | 79.69 | 81.28 | 82.88 | 86.07 |
| 1 15/16 | 74.11 | 75.76 | 77.41 | 79.05 | 80.70 | 82.34 | 83.99 | 85.64 | 88.93 |
| 2 | 76.50 | 78.20 | 79.90 | 81.60 | 83.30 | 85.00 | 86.70 | 88.40 | 91.80 |

Weights per lineal foot of Flat Rolled Steel Bars

Continued

1 cubic foot weighing 489.6 lbs.

| Thickness, inches. | WIDTH, IN INCHES. | | | | | | | | |
|-----------------------|-------------------|----------|--------|----------|--------|----------|--------|----------|--------|
| | 14 in. | 14 ½ in. | 15 in. | 15 ½ in. | 16 in. | 16 ½ in. | 17 in. | 17 ½ in. | 18 in. |
| 1/8 | 5.96 | 6.14 | 6.36 | 6.58 | 6.80 | 7.00 | 7.24 | 7.44 | 7.66 |
| 3/16 | 8.92 | 9.24 | 9.56 | 9.88 | 10.20 | 10.62 | 10.84 | 11.16 | 11.48 |
| 1/4 | 11.90 | 12.32 | 12.75 | 13.18 | 13.60 | 14.02 | 14.44 | 14.86 | 15.30 |
| 5/16 | 14.88 | 15.40 | 15.94 | 16.47 | 17.00 | 17.52 | 18.06 | 18.58 | 19.12 |
| 3/8 | 17.86 | 18.50 | 19.14 | 19.77 | 20.40 | 21.04 | 21.68 | 22.32 | 22.96 |
| 7/16 | 20.82 | 21.57 | 22.32 | 23.06 | 23.80 | 24.54 | 25.28 | 26.04 | 26.79 |
| 1/2 | 23.80 | 24.64 | 25.50 | 26.35 | 27.20 | 28.05 | 28.89 | 29.75 | 30.60 |
| 9/16 | 26.78 | 27.74 | 28.70 | 29.66 | 30.60 | 31.56 | 32.52 | 33.48 | 34.44 |
| 5/8 | 29.74 | 30.80 | 31.88 | 32.94 | 34.00 | 35.06 | 36.12 | 37.18 | 38.25 |
| 11/16 | 32.72 | 33.88 | 35.06 | 36.24 | 37.40 | 38.56 | 39.72 | 40.90 | 42.08 |
| 3/4 | 35.71 | 36.98 | 38.26 | 39.54 | 40.80 | 42.08 | 43.36 | 44.64 | 45.92 |
| 13/16 | 38.67 | 40.05 | 41.43 | 42.81 | 44.20 | 45.58 | 46.96 | 48.34 | 49.72 |
| 7/8 | 41.65 | 43.14 | 44.62 | 46.10 | 47.60 | 49.10 | 50.60 | 52.08 | 53.56 |
| 15/16 | 44.63 | 46.22 | 47.82 | 49.41 | 51.00 | 52.60 | 54.20 | 55.79 | 57.38 |
| 1 | 47.60 | 49.30 | 51.00 | 52.70 | 54.40 | 56.10 | 57.80 | 59.50 | 61.20 |
| 1/16 | 50.57 | 52.38 | 54.20 | 56.00 | 57.80 | 59.60 | 61.40 | 63.21 | 65.02 |
| 1/8 | 53.55 | 55.46 | 57.37 | 59.28 | 61.20 | 63.12 | 65.04 | 66.95 | 68.85 |
| 3/16 | 56.52 | 58.54 | 60.56 | 62.58 | 64.60 | 66.62 | 68.64 | 70.66 | 72.68 |
| 1/4 | 59.50 | 61.62 | 63.76 | 65.88 | 68.00 | 70.14 | 72.26 | 74.38 | 76.50 |
| 5/16 | 62.47 | 64.70 | 66.95 | 69.18 | 71.40 | 73.62 | 75.86 | 78.10 | 80.33 |
| 3/8 | 65.45 | 67.79 | 70.12 | 72.46 | 74.80 | 77.14 | 79.48 | 81.81 | 84.15 |
| 7/16 | 68.42 | 70.88 | 73.32 | 75.76 | 78.20 | 80.64 | 83.08 | 85.54 | 88.00 |
| 1/2 | 71.40 | 73.96 | 76.51 | 79.06 | 81.60 | 84.16 | 86.70 | 89.26 | 91.80 |
| 9/16 | 74.38 | 77.02 | 79.69 | 82.34 | 85.00 | 87.66 | 90.31 | 92.98 | 95.63 |
| 5/8 | 77.35 | 80.10 | 82.88 | 85.64 | 88.40 | 91.16 | 93.93 | 96.68 | 99.45 |
| 11/16 | 80.33 | 83.18 | 86.06 | 88.94 | 91.80 | 94.66 | 97.54 | 100.40 | 103.28 |
| 3/4 | 83.30 | 86.28 | 89.25 | 92.24 | 95.20 | 98.18 | 101.15 | 104.14 | 107.10 |
| 13/16 | 86.28 | 89.36 | 92.44 | 95.56 | 98.60 | 101.68 | 104.76 | 107.84 | 110.93 |
| 7/8 | 89.25 | 92.44 | 95.63 | 98.80 | 102.00 | 105.20 | 108.38 | 111.58 | 114.75 |
| 15/16 | 92.23 | 95.52 | 98.81 | 102.10 | 105.40 | 108.70 | 111.99 | 115.28 | 118.58 |
| 2 | 95.20 | 98.60 | 102.00 | 105.30 | 108.80 | 112.20 | 115.60 | 119.00 | 122.40 |

Weights and areas of Square and Round Steel Bars

Also circumferances of round bars

Assuming one cubic foot to weigh 490 pounds.

| Thick- ness or diam. in inches. | Weight of square bar 1 ft. long. | Weight of round bar 1 ft. long. | Area of square bar in square inches. | Area of round bar in square inches. | Circumfer- ence of round bar in inches. |
|--|--|---|--|---|---|
| $\frac{3}{16}$ | .120 | .094 | .0352 | .0276 | .5890 |
| $\frac{1}{4}$ | .213 | .167 | .0625 | .0491 | .7854 |
| $\frac{5}{16}$ | .332 | .261 | .0977 | .0767 | .9817 |
| $\frac{3}{8}$ | .478 | .375 | .1406 | .1104 | 1.1781 |
| $\frac{7}{16}$ | .651 | .511 | .1914 | .1503 | 1.3744 |
| $\frac{1}{2}$ | .851 | .668 | .2500 | .1963 | 1.5708 |
| $\frac{9}{16}$ | 1.076 | .845 | .3164 | .2485 | 1.7671 |
| $\frac{5}{8}$ | 1.329 | 1.044 | .3906 | .3068 | 1.9635 |
| $\frac{11}{16}$ | 1.608 | 1.263 | .4727 | .3712 | 2.1598 |
| $\frac{3}{4}$ | 1.914 | 1.503 | .5625 | .4418 | 2.3562 |
| $\frac{13}{16}$ | 2.246 | 1.764 | .6602 | .5185 | 2.5525 |
| $\frac{7}{8}$ | 2.605 | 2.046 | .7656 | .6013 | 2.7489 |
| $\frac{15}{16}$ | 2.990 | 2.348 | .8789 | .6903 | 2.9452 |
| 1 | 3.402 | 2.672 | 1.0000 | .7854 | 3.1416 |
| $\frac{1}{16}$ | 3.841 | 3.017 | 1.1289 | .8866 | 3.3379 |
| $\frac{1}{8}$ | 4.306 | 3.382 | 1.2656 | .9940 | 3.5343 |
| $\frac{3}{16}$ | 4.798 | 3.768 | 1.4102 | 1.1075 | 3.7306 |
| $\frac{1}{4}$ | 5.316 | 4.175 | 1.5625 | 1.2272 | 3.9270 |
| $\frac{5}{16}$ | 5.861 | 4.603 | 1.7227 | 1.3530 | 4.1233 |
| $\frac{3}{8}$ | 6.432 | 5.052 | 1.8906 | 1.4849 | 4.3197 |
| $\frac{7}{16}$ | 7.030 | 5.521 | 2.0664 | 1.6230 | 4.5160 |
| $\frac{1}{2}$ | 7.655 | 6.012 | 2.2500 | 1.7671 | 4.7124 |
| $\frac{9}{16}$ | 8.306 | 6.524 | 2.4414 | 1.9175 | 4.9087 |
| $\frac{5}{8}$ | 8.984 | 7.056 | 2.6406 | 2.0739 | 5.1051 |
| $\frac{11}{16}$ | 9.688 | 7.609 | 2.8477 | 2.2365 | 5.3014 |
| $\frac{3}{4}$ | 10.419 | 8.183 | 3.0625 | 2.4053 | 5.4978 |
| $\frac{13}{16}$ | 11.177 | 8.778 | 3.2852 | 2.5802 | 5.6941 |
| $\frac{7}{8}$ | 11.961 | 9.394 | 3.5156 | 2.7612 | 5.8905 |
| $\frac{15}{16}$ | 12.772 | 10.031 | 3.7539 | 2.9483 | 6.0868 |

Weights and areas of Square and Round Steel Bars

Continued

Also circumferences of round bars

Assuming one cubic foot to weigh 490 pounds.

| Thick- ness or diam. in inches. | Weight of square bar 1 ft. long. | Weight of round bar 1 ft. long. | Area of square bar in square inches. | Area of round bar in square inches. | Circum- ference of round bar in inches. |
|--|--|---|--|---|---|
| 2 | 13.61 | 10.69 | 4.0000 | 3.1416 | 6.2832 |
| $\frac{1}{16}$ | 14.47 | 11.36 | 4.2539 | 3.3410 | 6.4795 |
| $\frac{1}{8}$ | 15.36 | 12.06 | 4.5156 | 3.5466 | 6.6759 |
| $\frac{3}{16}$ | 16.28 | 12.79 | 4.7852 | 3.7583 | 6.8722 |
| $\frac{1}{4}$ | 17.22 | 13.52 | 5.0625 | 3.9761 | 7.0686 |
| $\frac{5}{16}$ | 18.19 | 14.29 | 5.3477 | 4.2000 | 7.2649 |
| $\frac{3}{8}$ | 19.19 | 15.07 | 5.6406 | 4.4301 | 7.4613 |
| $\frac{7}{16}$ | 20.21 | 15.87 | 5.9414 | 4.6664 | 7.6576 |
| $\frac{1}{2}$ | 21.26 | 16.70 | 6.2500 | 4.9087 | 7.8540 |
| $\frac{9}{16}$ | 22.34 | 17.55 | 6.5664 | 5.1572 | 8.0503 |
| $\frac{5}{8}$ | 23.44 | 18.41 | 6.8906 | 5.4119 | 8.2467 |
| $\frac{11}{16}$ | 24.57 | 19.30 | 7.2227 | 5.6727 | 8.4430 |
| $\frac{3}{4}$ | 25.73 | 20.21 | 7.5625 | 5.9396 | 8.6394 |
| $\frac{13}{16}$ | 26.91 | 21.14 | 7.9102 | 6.2126 | 8.8357 |
| $\frac{7}{8}$ | 28.12 | 22.09 | 8.2656 | 6.4918 | 9.0321 |
| $\frac{15}{16}$ | 29.36 | 23.06 | 8.6289 | 6.7771 | 9.2284 |
| 3 | 30.62 | 24.05 | 9.0000 | 7.0686 | 9.4248 |
| $\frac{1}{16}$ | 31.91 | 25.06 | 9.3789 | 7.3662 | 9.6211 |
| $\frac{1}{8}$ | 33.23 | 26.10 | 9.7656 | 7.6699 | 9.8175 |
| $\frac{3}{16}$ | 34.57 | 27.15 | 10.160 | 7.9798 | 10.014 |
| $\frac{1}{4}$ | 35.94 | 28.23 | 10.563 | 8.2958 | 10.210 |
| $\frac{5}{16}$ | 37.33 | 29.32 | 10.973 | 8.6179 | 10.407 |
| $\frac{3}{8}$ | 38.75 | 30.43 | 11.391 | 8.9462 | 10.603 |
| $\frac{7}{16}$ | 40.20 | 31.57 | 11.816 | 9.2806 | 10.799 |
| $\frac{1}{2}$ | 41.68 | 32.74 | 12.250 | 9.6211 | 10.996 |
| $\frac{9}{16}$ | 43.17 | 33.91 | 12.691 | 9.9678 | 11.192 |
| $\frac{5}{8}$ | 44.71 | 35.12 | 13.141 | 10.321 | 11.388 |
| $\frac{11}{16}$ | 46.26 | 36.33 | 13.598 | 10.680 | 11.585 |
| $\frac{3}{4}$ | 47.84 | 37.57 | 14.063 | 11.045 | 11.781 |
| $\frac{13}{16}$ | 49.45 | 38.84 | 14.535 | 11.416 | 11.977 |
| $\frac{7}{8}$ | 51.09 | 40.13 | 15.016 | 11.793 | 12.174 |
| $\frac{15}{16}$ | 52.75 | 41.43 | 15.504 | 12.177 | 12.370 |

Weights and areas of Square and Round Steel Bars

Continued

Also circumferences of round bars

Assuming one cubic foot to weigh 490 pounds.

| Thick- ness or diam. in inches. | Weight of square bar 1 ft. long. | Weight of round bar 1 ft. long. | Area of square bar in square inches. | Area of round bar in square inches. | Circumfer- ence of round bar in inches. |
|--|--|---|--|---|---|
| 4 | 54.45 | 42.77 | 16.000 | 12.566 | 12.566 |
| $\frac{1}{8}$ | 57.90 | 45.47 | 17.016 | 13.364 | 12.959 |
| $\frac{1}{4}$ | 61.47 | 48.28 | 18.063 | 14.186 | 13.352 |
| $\frac{3}{8}$ | 65.13 | 51.15 | 19.141 | 15.033 | 13.744 |
| $\frac{1}{2}$ | 69.81 | 54.83 | 20.250 | 15.904 | 14.137 |
| $\frac{5}{8}$ | 72.79 | 57.17 | 21.391 | 16.800 | 14.530 |
| $\frac{3}{4}$ | 76.78 | 60.30 | 22.563 | 17.721 | 14.923 |
| $\frac{7}{8}$ | 80.87 | 63.52 | 23.766 | 18.665 | 15.315 |
| 5 | 85.08 | 66.82 | 25.000 | 19.635 | 15.708 |
| $\frac{1}{8}$ | 89.38 | 70.20 | 26.266 | 20.629 | 16.101 |
| $\frac{1}{4}$ | 93.80 | 73.67 | 27.563 | 21.648 | 16.493 |
| $\frac{3}{8}$ | 98.31 | 77.21 | 28.891 | 22.691 | 16.886 |
| $\frac{1}{2}$ | 102.94 | 80.85 | 30.250 | 23.758 | 17.279 |
| $\frac{5}{8}$ | 107.67 | 84.56 | 31.641 | 24.850 | 17.671 |
| $\frac{3}{4}$ | 112.52 | 88.37 | 33.063 | 25.967 | 18.064 |
| $\frac{7}{8}$ | 117.45 | 92.25 | 34.516 | 27.109 | 18.457 |
| 6 | 122.51 | 96.22 | 36.000 | 28.274 | 18.850 |
| $\frac{1}{8}$ | 127.66 | 100.26 | 37.516 | 29.465 | 19.242 |
| $\frac{1}{4}$ | 132.94 | 104.41 | 39.063 | 30.680 | 19.635 |
| $\frac{3}{8}$ | 138.30 | 108.62 | 40.641 | 31.919 | 20.028 |
| $\frac{1}{2}$ | 143.78 | 112.92 | 42.250 | 33.183 | 20.420 |
| $\frac{5}{8}$ | 149.35 | 117.30 | 43.891 | 34.472 | 20.813 |
| $\frac{3}{4}$ | 155.05 | 121.78 | 45.563 | 35.785 | 21.206 |
| $\frac{7}{8}$ | 160.84 | 125.32 | 47.266 | 37.122 | 21.598 |
| 7 | 166.75 | 130.97 | 49.000 | 38.485 | 21.991 |
| $\frac{1}{8}$ | 172.75 | 135.68 | 50.766 | 39.871 | 22.384 |
| $\frac{1}{4}$ | 178.87 | 140.48 | 52.563 | 41.282 | 22.777 |
| $\frac{3}{8}$ | 185.08 | 145.36 | 54.391 | 42.718 | 23.169 |
| $\frac{1}{2}$ | 191.42 | 150.34 | 56.250 | 44.179 | 23.562 |
| $\frac{5}{8}$ | 197.85 | 155.39 | 58.141 | 45.664 | 23.955 |
| $\frac{3}{4}$ | 204.39 | 160.53 | 60.063 | 47.173 | 24.347 |
| $\frac{7}{8}$ | 211.03 | 165.74 | 62.016 | 48.707 | 24.740 |

Weights and areas of Square and Round Steel Bars

Continued

Also circumferences of round bars

Assuming one cubic foot to weigh 490 pounds.

| Thick- ness or diam. in inches. | Weight of square bar 1 ft. long. | Weight of round bar 1 ft. long. | Area of square bar in square inches. | Area of round bar in square inches. | Circumfer- ence of round bar in inches. |
|--|--|---|--|---|---|
| 8 | 217.78 | 171.04 | 64.000 | 50.265 | 25.133 |
| $\frac{1}{8}$ | 224.64 | 176.43 | 66.016 | 51.849 | 25.525 |
| $\frac{1}{4}$ | 231.61 | 181.91 | 68.063 | 53.456 | 25.918 |
| $\frac{3}{8}$ | 238.68 | 187.46 | 70.141 | 55.088 | 26.311 |
| $\frac{1}{2}$ | 245.86 | 193.10 | 72.250 | 56.745 | 26.704 |
| $\frac{5}{8}$ | 253.14 | 198.82 | 74.391 | 58.426 | 27.096 |
| $\frac{3}{4}$ | 260.54 | 204.63 | 76.593 | 60.132 | 27.489 |
| $\frac{7}{8}$ | 268.03 | 210.51 | 78.766 | 61.862 | 27.882 |
| 9 | 275.64 | 216.49 | 81.000 | 63.617 | 28.274 |
| $\frac{1}{8}$ | 283.34 | 222.54 | 83.266 | 65.397 | 28.667 |
| $\frac{1}{4}$ | 291.16 | 228.68 | 85.563 | 67.201 | 29.060 |
| $\frac{3}{8}$ | 299.08 | 234.90 | 87.891 | 69.029 | 29.452 |
| $\frac{1}{2}$ | 307.11 | 241.20 | 90.250 | 70.882 | 29.845 |
| $\frac{5}{8}$ | 315.24 | 247.59 | 92.641 | 72.760 | 30.238 |
| $\frac{3}{4}$ | 323.49 | 254.07 | 95.063 | 74.662 | 30.631 |
| $\frac{7}{8}$ | 331.83 | 260.62 | 97.516 | 76.589 | 31.023 |
| 10 | 340.29 | 267.16 | 100.00 | 78.540 | 31.416 |
| $\frac{1}{8}$ | 348.85 | 273.99 | 102.52 | 80.516 | 31.809 |
| $\frac{1}{4}$ | 357.52 | 280.80 | 105.06 | 82.516 | 32.201 |
| $\frac{3}{8}$ | 366.29 | 287.68 | 107.64 | 84.541 | 32.594 |
| $\frac{1}{2}$ | 375.17 | 294.66 | 110.25 | 86.590 | 32.987 |
| $\frac{5}{8}$ | 384.15 | 301.71 | 112.89 | 88.664 | 33.379 |
| $\frac{3}{4}$ | 393.25 | 308.86 | 115.56 | 90.763 | 33.772 |
| $\frac{7}{8}$ | 402.44 | 316.08 | 118.27 | 92.886 | 34.165 |
| 11 | 411.75 | 323.39 | 121.00 | 95.033 | 34.558 |
| $\frac{1}{8}$ | 421.16 | 330.78 | 123.77 | 97.205 | 34.950 |
| $\frac{1}{4}$ | 438.68 | 338.26 | 126.56 | 99.402 | 35.343 |
| $\frac{3}{8}$ | 440.30 | 345.81 | 129.39 | 101.62 | 35.739 |
| $\frac{1}{2}$ | 450.03 | 353.45 | 132.25 | 103.87 | 36.128 |
| $\frac{5}{8}$ | 459.87 | 361.18 | 135.14 | 106.14 | 36.521 |
| $\frac{3}{4}$ | 469.81 | 368.99 | 138.06 | 108.43 | 36.914 |
| $\frac{7}{8}$ | 479.86 | 376.88 | 141.02 | 110.75 | 37.306 |

Standard Gauges

| No. of Gauge | THICKNESS IN DECIMALS OF AN INCH | | | | No. of Gauge |
|--------------|--|--|----------------------------|------------------------|--------------|
| | United States Standard Sheet and Plate Gauge | Birmingham Wire Gauge (B.W.G.) also known as Stubs Gauge (Eng. Stand.) | Washburn & Moen Wire Gauge | Brown & Sharpe's Gauge | |
| 6° | .46875 | ..... | ..... | ..... | 6° |
| 5° | .4375 | ..... | ..... | ..... | 5° |
| 4° | .40625 | .454 | .3938 | .46 | 4° |
| 3° | .375 | .425 | .3625 | .40964 | 3° |
| 2° | .34375 | .380 | .3310 | .3648 | 2° |
| 0 | .3125 | .340 | .3065 | .32486 | 0 |
| 1 | .28125 | .300 | .2830 | .2893 | 1 |
| 2 | .265625 | .284 | .2625 | .25763 | 2 |
| 3 | .25 | .259 | .2437 | .22942 | 3 |
| 4 | .234375 | .238 | .2253 | .20431 | 4 |
| 5 | .21875 | .220 | .2070 | .18194 | 5 |
| 6 | .203125 | .203 | .1920 | .16202 | 6 |
| 7 | .1875 | .180 | .1770 | .14428 | 7 |
| 8 | .171875 | .165 | .1620 | .12849 | 8 |
| 9 | .15625 | .148 | .1483 | .11443 | 9 |
| 10 | .140625 | .134 | .1350 | .10189 | 10 |
| 11 | .125 | .120 | .1205 | .090742 | 11 |
| 12 | .109375 | .109 | .1055 | .080808 | 12 |
| 13 | .09375 | .095 | .0915 | .071961 | 13 |
| 14 | .078125 | .083 | .0800 | .064084 | 14 |
| 15 | .0703125 | .072 | .0720 | .057068 | 15 |
| 16 | .0625 | .065 | .0625 | .05082 | 16 |
| 17 | .05625 | .058 | .0540 | .045257 | 17 |
| 18 | .05 | .049 | .0475 | .040303 | 18 |
| 19 | .04375 | .042 | .0410 | .03589 | 19 |
| 20 | .0375 | .035 | .0348 | .031961 | 20 |
| 21 | .034375 | .032 | .03175 | .028462 | 21 |
| 22 | .03125 | .028 | .0286 | .025347 | 22 |
| 23 | .028125 | .025 | .0258 | .022571 | 23 |
| 24 | .025 | .022 | .0230 | .0201 | 24 |
| 25 | .021875 | .020 | .0204 | .0179 | 25 |
| 26 | .01875 | .018 | .0181 | .01594 | 26 |
| 27 | .0171875 | .016 | .0173 | .014195 | 27 |
| 28 | .015625 | .014 | .0162 | .012641 | 28 |
| 29 | .0140625 | .013 | .0150 | .011257 | 29 |
| 30 | .0125 | .012 | .0140 | .010025 | 30 |
| 31 | .0109375 | .010 | .0132 | .008928 | 31 |
| 32 | .01015625 | .009 | .0128 | .00795 | 32 |
| 33 | .009375 | .008 | .0118 | .00708 | 33 |
| 34 | .00859375 | .007 | .0104 | .006304 | 34 |
| 35 | .0078125 | .005 | .0095 | .005614 | 35 |
| 36 | .00703125 | .004 | .0090 | .005 | 36 |
| 37 | .006640625 | .... | .... | .004453 | 37 |
| 38 | .00625 | .... | .... | .003965 | 38 |
| 39 | ..... | .... | .... | .003531 | 39 |
| 40 | ..... | .... | .... | .003144 | 40 |

Decimal Equivalents

Fractions of an inch in decimals

| | | | | | |
|-----------------|---------|-----------------|---------|-----------------|---------|
| $\frac{1}{64}$ | .015625 | $\frac{11}{32}$ | .34375 | $\frac{43}{64}$ | .671875 |
| $\frac{1}{32}$ | .03125 | $\frac{23}{64}$ | .359375 | $\frac{11}{16}$ | .6875 |
| $\frac{3}{64}$ | .046875 | $\frac{3}{8}$ | .375 | $\frac{45}{64}$ | .703125 |
| $\frac{1}{16}$ | .0625 | $\frac{25}{64}$ | .390625 | $\frac{23}{32}$ | .71875 |
| $\frac{5}{64}$ | .078125 | $\frac{13}{32}$ | .40625 | $\frac{47}{64}$ | .734375 |
| $\frac{3}{32}$ | .09375 | $\frac{27}{64}$ | .421875 | $\frac{3}{4}$ | .75 |
| $\frac{7}{64}$ | .109375 | $\frac{7}{16}$ | .4375 | $\frac{49}{64}$ | .765625 |
| $\frac{1}{8}$ | .125 | $\frac{29}{64}$ | .453125 | $\frac{25}{32}$ | .78125 |
| $\frac{9}{64}$ | .140625 | $\frac{15}{32}$ | .46875 | $\frac{51}{64}$ | .796875 |
| $\frac{5}{32}$ | .15625 | $\frac{31}{64}$ | .484375 | $\frac{13}{16}$ | .8125 |
| $\frac{11}{64}$ | .171875 | $\frac{1}{2}$ | .5 | $\frac{53}{64}$ | .828125 |
| $\frac{3}{16}$ | .1875 | $\frac{33}{64}$ | .515625 | $\frac{27}{32}$ | .84375 |
| $\frac{13}{64}$ | .203125 | $\frac{17}{32}$ | .53125 | $\frac{55}{64}$ | .859375 |
| $\frac{7}{32}$ | .21875 | $\frac{35}{64}$ | .546875 | $\frac{7}{8}$ | .875 |
| $\frac{15}{64}$ | .234375 | $\frac{9}{16}$ | .5625 | $\frac{57}{64}$ | .890625 |
| $\frac{1}{4}$ | .25 | $\frac{37}{64}$ | .578125 | $\frac{29}{32}$ | .90625 |
| $\frac{17}{64}$ | .265625 | $\frac{19}{32}$ | .59375 | $\frac{29}{64}$ | .921875 |
| $\frac{9}{32}$ | .28125 | $\frac{39}{64}$ | .609375 | $\frac{15}{16}$ | .9375 |
| $\frac{19}{64}$ | .296875 | $\frac{5}{8}$ | .625 | $\frac{61}{64}$ | .953125 |
| $\frac{5}{16}$ | .3125 | $\frac{41}{64}$ | .640625 | $\frac{31}{32}$ | .96875 |
| $\frac{21}{64}$ | .328125 | $\frac{21}{32}$ | .65625 | $\frac{63}{64}$ | .984375 |

Decimals of a foot for each $\frac{1}{64}$ th of an inch

| In. | 0 in. | 1 in. | 2 in. | 3 in. | 4 in. | 5 in. | 6 in. | 7 in. | 8 in. | 9 in. | 10 in. | 11 in. |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| 0 | 0 | .0833 | .1667 | .2500 | .3333 | .4167 | .5000 | .5833 | .6667 | .7500 | .8333 | .9167 |
| $\frac{1}{8}$ | .0013 | .0846 | .1680 | .2513 | .3346 | .4180 | .5013 | .5846 | .6680 | .7513 | .8346 | .9180 |
| $\frac{3}{32}$ | .0026 | .0859 | .1693 | .2526 | .3359 | .4193 | .5026 | .5859 | .6693 | .7526 | .8359 | .9193 |
| $\frac{5}{64}$ | .0039 | .0872 | .1706 | .2539 | .3372 | .4206 | .5039 | .5872 | .6706 | .7539 | .8372 | .9206 |
| $\frac{7}{16}$ | .0052 | .0885 | .1719 | .2552 | .3385 | .4219 | .5052 | .5885 | .6719 | .7552 | .8385 | .9219 |
| $\frac{9}{64}$ | .0065 | .0898 | .1732 | .2565 | .3398 | .4232 | .5065 | .5898 | .6732 | .7565 | .8398 | .9232 |
| $\frac{11}{32}$ | .0078 | .0911 | .1745 | .2578 | .3411 | .4245 | .5078 | .5911 | .6745 | .7578 | .8411 | .9245 |
| $\frac{13}{64}$ | .0091 | .0924 | .1758 | .2591 | .3424 | .4258 | .5091 | .5924 | .6758 | .7591 | .8424 | .9258 |
| $\frac{15}{8}$ | .0104 | .0937 | .1771 | .2604 | .3437 | .4271 | .5104 | .5937 | .6771 | .7604 | .8437 | .9271 |
| $\frac{17}{64}$ | .0117 | .0951 | .1784 | .2617 | .3451 | .4284 | .5117 | .5951 | .6784 | .7617 | .8451 | .9284 |
| $\frac{19}{32}$ | .0130 | .0964 | .1797 | .2630 | .3464 | .4297 | .5130 | .5964 | .6797 | .7630 | .8464 | .9297 |
| $\frac{21}{64}$ | .0143 | .0977 | .1810 | .2643 | .3477 | .4310 | .5143 | .5977 | .6810 | .7643 | .8477 | .9310 |
| $\frac{23}{16}$ | .0156 | .0990 | .1823 | .2656 | .3490 | .4323 | .5156 | .5990 | .6823 | .7656 | .8490 | .9323 |
| $\frac{25}{64}$ | .0169 | .1003 | .1836 | .2669 | .3503 | .4336 | .5169 | .6003 | .6836 | .7669 | .8503 | .9336 |
| $\frac{27}{32}$ | .0182 | .1016 | .1849 | .2682 | .3516 | .4349 | .5182 | .6016 | .6849 | .7682 | .8516 | .9349 |
| $\frac{29}{64}$ | .0195 | .1029 | .1862 | .2695 | .3529 | .4362 | .5195 | .6029 | .6862 | .7695 | .8529 | .9362 |
| $\frac{31}{4}$ | .0208 | .1042 | .1875 | .2708 | .3542 | .4375 | .5208 | .6042 | .6875 | .7708 | .8542 | .9375 |
| $\frac{33}{64}$ | .0221 | .1055 | .1888 | .2721 | .3555 | .4388 | .5221 | .6055 | .6888 | .7721 | .8555 | .9388 |
| $\frac{35}{32}$ | .0234 | .1068 | .1901 | .2734 | .3568 | .4401 | .5234 | .6068 | .6901 | .7734 | .8568 | .9401 |
| $\frac{37}{64}$ | .0247 | .1081 | .1914 | .2747 | .3581 | .4414 | .5247 | .6081 | .6914 | .7747 | .8581 | .9414 |
| $\frac{39}{16}$ | .0260 | .1094 | .1927 | .2760 | .3594 | .4427 | .5260 | .6094 | .6927 | .7760 | .8594 | .9427 |
| $\frac{41}{64}$ | .0273 | .1107 | .1940 | .2773 | .3607 | .4440 | .5273 | .6107 | .6940 | .7773 | .8607 | .9440 |
| $\frac{43}{32}$ | .0286 | .1120 | .1953 | .2786 | .3620 | .4453 | .5286 | .6120 | .6953 | .7786 | .8620 | .9453 |
| $\frac{45}{64}$ | .0299 | .1133 | .1966 | .2799 | .3633 | .4466 | .5299 | .6133 | .6966 | .7799 | .8633 | .9466 |
| $\frac{47}{8}$ | .0312 | .1146 | .1979 | .2812 | .3646 | .4479 | .5312 | .6146 | .6979 | .7812 | .8646 | .9479 |
| $\frac{49}{64}$ | .0326 | .1159 | .1992 | .2826 | .3659 | .4492 | .5326 | .6159 | .6992 | .7826 | .8659 | .9492 |
| $\frac{51}{32}$ | .0339 | .1172 | .2005 | .2839 | .3672 | .4505 | .5339 | .6172 | .7005 | .7839 | .8672 | .9505 |
| $\frac{53}{64}$ | .0352 | .1185 | .2018 | .2852 | .3685 | .4518 | .5352 | .6185 | .7018 | .7852 | .8685 | .9518 |
| $\frac{55}{16}$ | .0365 | .1198 | .2031 | .2865 | .3698 | .4531 | .5365 | .6198 | .7031 | .7865 | .8698 | .9531 |
| $\frac{57}{64}$ | .0378 | .1211 | .2044 | .2878 | .3711 | .4544 | .5378 | .6211 | .7044 | .7878 | .8711 | .9544 |
| $\frac{59}{32}$ | .0391 | .1224 | .2057 | .2891 | .3724 | .4557 | .5391 | .6224 | .7057 | .7891 | .8724 | .9557 |
| $\frac{61}{64}$ | .0404 | .1237 | .2070 | .2904 | .3737 | .4570 | .5404 | .6237 | .7070 | .7904 | .8737 | .9570 |
| $\frac{63}{2}$ | .0417 | .1250 | .2083 | .2917 | .3750 | .4583 | .5417 | .6250 | .7083 | .7917 | .8750 | .9583 |

Circumferences and Areas of Circles

| OF ONE INCH. | | | | IN INCHES OR FEET. | | | | | |
|--------------|---------|--------|--------|--------------------|---------|---------|-----|--------|----------|
| Fract. | Dec. | Circ. | Area | Dia | Circ. | Area | Dia | Circ. | Area |
| 1-64 | .015625 | .04909 | .00019 | 1 | 3.1416 | .7854 | 64 | 201.06 | 3216.99 |
| 1-32 | .03125 | .09818 | .00077 | 2 | 6.2832 | 3.1416 | 65 | 204.20 | 3318.31 |
| 3-64 | .046875 | .14726 | .00173 | 3 | 9.4248 | 7.0686 | 66 | 207.34 | 3421.19 |
| 1-16 | .0625 | .19635 | .00307 | 4 | 12.5664 | 12.5664 | 67 | 210.49 | 3525.65 |
| 5-64 | .078125 | .24545 | .00479 | 5 | 15.7080 | 19.635 | 68 | 213.63 | 3631.68 |
| 3-32 | .09375 | .29452 | .00690 | 6 | 18.850 | 28.274 | 69 | 216.77 | 3739.28 |
| 7-64 | .109375 | .34363 | .00939 | 7 | 21.991 | 38.485 | 70 | 219.91 | 3848.45 |
| 1-8 | .125 | .39270 | .01227 | 8 | 25.133 | 50.266 | 71 | 223.05 | 3959.19 |
| 9-64 | .140625 | .44181 | .01553 | 9 | 28.274 | 63.617 | 72 | 226.19 | 4071.50 |
| 5-32 | .15625 | .49087 | .01917 | 10 | 31.416 | 78.540 | 73 | 229.34 | 4185.39 |
| 11-64 | .171875 | .53999 | .02320 | 11 | 34.558 | 95.033 | 74 | 232.48 | 4300.84 |
| 3-16 | .1875 | .58905 | .02761 | 12 | 37.699 | 113.1 | 75 | 235.62 | 4417.86 |
| 13-64 | .203125 | .63817 | .03241 | 13 | 40.841 | 132.73 | 76 | 238.76 | 4536.46 |
| 7-32 | .21875 | .68722 | .03758 | 14 | 43.982 | 153.94 | 77 | 241.90 | 4656.63 |
| 15-64 | .234375 | .73635 | .04314 | 15 | 47.124 | 176.71 | 78 | 245.04 | 4778.36 |
| 1-4 | .25 | .78540 | .04909 | 16 | 50.265 | 201.06 | 79 | 248.19 | 4901.67 |
| 17-64 | .265625 | .83453 | .05542 | 17 | 53.407 | 226.98 | 80 | 251.33 | 5026.55 |
| 9-32 | .28125 | .88357 | .06213 | 18 | 56.549 | 254.47 | 81 | 254.47 | 5153. |
| 19-64 | .296875 | .93271 | .06922 | 19 | 59.690 | 283.53 | 82 | 257.61 | 5281.02 |
| 5-16 | .3125 | .98175 | .07670 | 20 | 62.832 | 314.16 | 83 | 260.75 | 5410.61 |
| 21-64 | .328125 | 1.0309 | .08456 | 21 | 65.973 | 346.36 | 84 | 263.89 | 5541.77 |
| 11-32 | .34375 | 1.0799 | .09281 | 22 | 69.115 | 380.13 | 85 | 267.04 | 5674.50 |
| 23-64 | .359375 | 1.1291 | .10144 | 23 | 72.257 | 415.48 | 86 | 270.18 | 5808.80 |
| 3-8 | .375 | 1.1781 | .11045 | 24 | 75.398 | 452.39 | 87 | 273.32 | 5944.68 |
| 25-64 | .390625 | 1.2273 | .11984 | 25 | 78.540 | 490.87 | 88 | 276.46 | 6082.12 |
| 13-32 | .40625 | 1.2763 | .12962 | 26 | 81.681 | 530.93 | 89 | 279.60 | 6221.14 |
| 27-64 | .421875 | 1.3254 | .13979 | 27 | 84.823 | 572.56 | 90 | 282.74 | 6361.73 |
| 7-16 | .4375 | 1.3744 | .15033 | 28 | 87.965 | 615.75 | 91 | 285.88 | 6503.88 |
| 29-64 | .453125 | 1.4236 | .16126 | 29 | 91.106 | 660.52 | 92 | 289.03 | 6647.61 |
| 15-32 | .46875 | 1.4726 | .17257 | 30 | 94.248 | 706.86 | 93 | 292.17 | 6792.91 |
| 31-64 | .484375 | 1.5218 | .18427 | 31 | 97.389 | 754.77 | 94 | 295.31 | 6939.78 |
| 1-2 | .5 | 1.5708 | .19635 | 32 | 100.53 | 804.25 | 95 | 298.45 | 7088.22 |
| 33-64 | .515625 | 1.6199 | .20880 | 33 | 103.67 | 855.30 | 96 | 301.59 | 7238.23 |
| 17-32 | .53125 | 1.6690 | .22166 | 34 | 106.81 | 907.92 | 97 | 304.73 | 7389.81 |
| 35-64 | .546875 | 1.7181 | .23489 | 35 | 109.96 | 962.11 | 98 | 307.88 | 7542.96 |
| 9-16 | .5625 | 1.7671 | .24850 | 36 | 113.10 | 1017.88 | 99 | 311.02 | 7697.69 |
| 37-64 | .578125 | 1.8163 | .26248 | 37 | 116.24 | 1075.21 | 100 | 314.16 | 7853.98 |
| 19-32 | .59375 | 1.8653 | .27688 | 38 | 119.38 | 1134.11 | 101 | 317.30 | 8011.85 |
| 39-64 | .609375 | 1.9145 | .29164 | 39 | 122.52 | 1194.59 | 102 | 320.44 | 8171.28 |
| 5-8 | .625 | 1.9635 | .30680 | 40 | 125.66 | 1256.64 | 103 | 323.58 | 8332.29 |
| 41-64 | .640625 | 2.0127 | .32232 | 41 | 128.81 | 1320.25 | 104 | 326.73 | 8494.87 |
| 21-32 | .65625 | 2.0617 | .33824 | 42 | 131.95 | 1385.44 | 105 | 329.87 | 8659.01 |
| 43-64 | .671875 | 2.1108 | .35453 | 43 | 135.09 | 1452.20 | 106 | 333.01 | 8824.73 |
| 11-16 | .6875 | 2.1598 | .37122 | 44 | 138.23 | 1520.53 | 107 | 336.15 | 8992.02 |
| 45-64 | .703125 | 2.2090 | .38828 | 45 | 141.37 | 1590.43 | 108 | 339.29 | 9160.88 |
| 23-32 | .71875 | 2.2580 | .40574 | 46 | 144.51 | 1661.90 | 109 | 342.43 | 9331.32 |
| 47-64 | .734375 | 2.3072 | .42356 | 47 | 147.65 | 1734.94 | 110 | 345.58 | 9503.32 |
| 3-4 | .75 | 2.3562 | .44179 | 48 | 150.80 | 1809.56 | 111 | 348.72 | 9676.83 |
| 49-64 | .765625 | 2.4054 | .45253 | 49 | 153.94 | 1885.74 | 112 | 351.86 | 9852.03 |
| 25-32 | .78125 | 2.4544 | .47937 | 50 | 157.08 | 1963.50 | 113 | 355. | 10028.75 |
| 51-64 | .796875 | 2.5036 | .49872 | 51 | 160.22 | 2042.82 | 114 | 358.14 | 10207.03 |
| 13-16 | .8125 | 2.5525 | .51849 | 52 | 163.36 | 2123.72 | 115 | 361.28 | 10386.89 |
| 53-64 | .828125 | 2.6017 | .53862 | 53 | 166.50 | 2206.18 | 116 | 364.42 | 10568.32 |
| 27-32 | .84375 | 2.6507 | .55914 | 54 | 169.65 | 2290.22 | 117 | 367.57 | 10751.32 |
| 55-64 | .859375 | 2.6999 | .58003 | 55 | 172.79 | 2375.83 | 118 | 370.71 | 10935.88 |
| 7-8 | .875 | 2.7489 | .60132 | 56 | 175.93 | 2463.01 | 119 | 373.85 | 11122.02 |
| 57-64 | .890625 | 2.7981 | .62298 | 57 | 179.07 | 2551.76 | 120 | 376.99 | 11309.73 |
| 29-32 | .90625 | 2.8471 | .65404 | 58 | 182.21 | 2642.08 | 121 | 380.13 | 11499.01 |
| 59-64 | .921875 | 2.8963 | .66746 | 59 | 185.35 | 2733.97 | 122 | 383.27 | 11689.87 |
| 15-16 | .9375 | 2.9452 | .69029 | 60 | 188.50 | 2827.43 | 123 | 386.42 | 11882.29 |
| 61-64 | .953125 | 2.9945 | .71349 | 61 | 191.64 | 2922.47 | 124 | 389.56 | 12076.28 |
| 31-32 | .96875 | 3.0434 | .73708 | 62 | 194.78 | 3019.07 | 125 | 392.70 | 12271.85 |
| 63-64 | .984375 | 3.0928 | .76097 | 63 | 197.92 | 3117.25 | 126 | 395.84 | 12468.98 |

Manufacturers' Standard Specifications

Adopted February 6, 1903

Structural Steel

Process of Manufacture

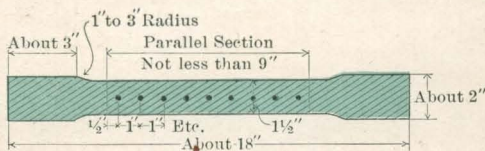
Testing and Inspection

Test Pieces

1. Steel may be made by either the Open-hearth or Bessemer Process.

2. All tests and inspections shall be made at the place of manufacture prior to shipment.

3. The tensile strength, limit of elasticity and ductility, shall be determined from a standard test piece cut from the finished material. The standard shape of the test piece for sheared plates shall be as shown by the following sketch:



Piece to be of same thickness as the plate.

On tests cut from other material the test piece may be either the same as for sheared plates, or it may be planed or turned parallel throughout its entire length, and in all cases where possible, two opposite sides of the test piece shall be the rolled surfaces. The elongation shall be measured on an original length of 8 inches, except as modified in section 12 paragraph *c*. Rivet rounds and small bars shall be tested of full size as rolled.

Two test pieces shall be taken from each melt or blow of finished material, one for tension and one for bending; but in case either test develops flaws, or the tensile test piece breaks outside of the middle third of its gauged length, it may be discarded and another test piece substituted therefor.

**Annealed
Test Pieces**

4. Material which is to be used without annealing or further treatment shall be tested in the condition in which it comes from the rolls. When material is to be annealed or otherwise treated before use, the specimen representing such material shall be similarly treated before testing.

Marking

5. Every finished piece of steel shall be stamped with the blow or melt number, and steel for pins shall have the blow or melt number stamped on the ends. Rivet and lacing steel, and small pieces for pin plates and stiffeners, may be shipped in bundles securely wired together, with the blow or melt number on a metal tag attached.

Finish

6. Finished bars shall be free from injurious seams, flaws or cracks, and have a workmanlike finish.

**Chemical
Properties**

7a. Steel for Buildings,
Train Sheds,
Highway Bridges
and similar structures. } Maximum
Phosphorus
.10 per cent.

7b. Steel for
Railway Bridges. } Maximum
Phosphorus
.08 per cent.

**Physical
Properties**

8. Structural Steel shall be of three grades, Rivet, Railway Bridge and Medium.

Rivet Steel

9. Ultimate strength, 48,000 to 58,000 pounds per square inch.

Elastic limit, not less than one-half the ultimate strength.

Percentage of
elongation, } $\frac{1,400,000}{\text{ultimate strength}}$

Bending test, 180 degrees flat on itself, without fracture on outside of bent portion.

**Steel for Rail-
way Bridges**

10. Ultimate strength, 55,000 to 65,000 pounds per square inch.

Elastic limit, not less than one half the ultimate strength.

Percentage of elongation, $\left. \begin{array}{l} \\ \end{array} \right\} \frac{1,400,000}{\text{ultimate strength}}$

Bending test, 180 degrees to a diameter equal to thickness of piece tested, without fracture on outside of bent portion.

Medium Steel

11. Ultimate strength, 60,000 to 70,000 pounds per square inch.

Elastic limit, not less than one-half the ultimate strength.

Percentage of elongation, $\left. \begin{array}{l} \\ \end{array} \right\} \frac{1,400,000}{\text{ultimate strength}}$

Bending test, 180 degrees to a diameter equal to thickness of piece tested, without fracture on outside of bent portion.

**Modifications
in Elongation
for Thin and
Thick Material**

12. For material less than $\frac{5}{16}$ inch, and more than $\frac{3}{4}$ inch in thickness, the following modifications shall be made in the requirements for elongation:

a. For each increase of $\frac{1}{8}$ inch in thickness above $\frac{3}{4}$ inch, a deduction of 1 per cent. shall be made from the specified elongation, except that the minimum elongation shall be 20 per cent. for eye-bar material and 18 per cent. for other structural material.

b. For each decrease of $\frac{1}{16}$ inch in thickness below $\frac{5}{16}$ inch, a deduction of $2\frac{1}{2}$ per cent. shall be made from the specified elongation.

c. In rounds of $\frac{5}{8}$ inch or less in diameter the elongation shall be measured in a length equal to eight times the diameter of section tested.

d. For pins made from any of the before-mentioned grades of steel, the required elongation shall be 5 per cent. less than that specified for each grade, as determined on a test piece, the center of which shall be one inch from the surface of the bar.

**Variation in
Weight**

13. The variation in cross-section or weight of more than $2\frac{1}{2}$ per cent. from that specified will be sufficient cause for rejection, except in the case of sheared plates, which will be covered by the following permissible variations:

a. Plates $12\frac{1}{2}$ pounds per square foot or heavier, up to 100 inches wide, when ordered to weight, shall not average more than $2\frac{1}{2}$ per cent. variation above or $2\frac{1}{2}$ per cent. below the theoretical weight. When 100 inches wide and over, 5 per cent. above or 5 per cent. below the theoretical weight.

b. Plates under $12\frac{1}{2}$ pounds per square foot, when ordered to weight, shall not average a greater variation than the following:

Up to 75 inches wide, $2\frac{1}{2}$ per cent. above or $2\frac{1}{2}$ per cent. below the theoretical weight. 75 inches wide up to 100 inches wide, 5 per cent. above or 3 per cent. below the theoretical weight. When 100 inches wide and over, 10 per cent. above or 3 per cent. below the theoretical weight.

c. For all plates ordered to gauge there will be permitted an average excess of weight over that corresponding to the dimensions on the order equal in amount to that specified in the following table:

Table of Allowances for Over-Weight for Rectangular Plates When Ordered to Gauge

Plates will be considered up to gauge if measuring not over $\frac{1}{100}$ inch less than the ordered gauge.

The weight of 1 cubic inch of rolled steel is assumed to be 0.2833 pound.

Plates $\frac{1}{4}$ Inch and Over in Thickness

| Thickness of Plate Inch | WIDTH OF PLATE | | | |
|----------------------------|------------------------------|-----------------------------------|-------------------------------------|------------------------------|
| | Up to 75 in. Per cent. | 75 in. to 100 in. Per cent. | Over 100 to 115 in. Per cent. | Over 115 in. Per cent. |
| $\frac{1}{4}$ | 10 | 14 | 18 | .. |
| $\frac{5}{16}$ | 8 | 12 | 16 | .. |
| $\frac{3}{8}$ | 7 | 10 | 13 | 17 |
| $\frac{7}{16}$ | 6 | 8 | 10 | 13 |
| $\frac{1}{2}$ | 5 | 7 | 9 | 12 |
| $\frac{9}{16}$ | 4½ | 6½ | 8½ | 11 |
| $\frac{5}{8}$ | 4 | 6 | 8 | 10 |
| Over $\frac{5}{8}$ | 3½ | 5 | 6½ | 9 |

Plates Under $\frac{1}{4}$ Inch in Thickness

| Thickness of Plate Inch | WIDTH OF PLATE | | |
|------------------------------------|---------------------------|---------------------------|--------------------------|
| | Up to 50 in. Per cent. | 50 to 70 in. Per cent. | Over 70 in. Per cent. |
| $\frac{1}{8}$ up to $\frac{5}{32}$ | 10 | 15 | 20 |
| $\frac{3}{32}$ " $\frac{3}{16}$ | 8½ | 12½ | 17 |
| $\frac{1}{16}$ " $\frac{1}{4}$ | 7 | 10 | 15 |

Structural Cast Iron

1. Except when chilled iron is specified, all castings shall be tough gray iron, from free injurious cold-shuts or blow-holes, true to pattern, and of a workmanlike finish. Sample pieces one inch square, cast from the same heat of metal in sand moulds, shall be capable of sustaining on a clear span of 4 feet 8 inches, a central load of 500 pounds when tested in the rough bar.

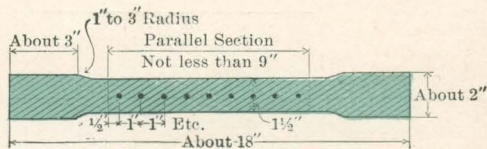
Special Open-Hearth Plate and Rivet Steel

Testing and Inspection

1. All tests and inspections shall be made at the place of manufacture prior to shipment

Test Pieces

2. The tensile strength, limit of elasticity and ductility shall be determined from a standard test piece cut from the finished material. The standard shape of the test piece for sheared plates shall be as shown by the following sketch:



Piece to be of same thickness as the plate.

On tests cut from other material the test piece may be either the same as for sheared plates, or it may be planed or turned parallel throughout its entire length, and in all cases where possible, two opposite sides of the test piece shall be the rolled surfaces. The elongation shall be measured on an original length of 8 inches, except as modified in section 12 paragraph *c*. Rivet rounds and small bars shall be tested of full size as rolled.

Four test pieces shall be taken from each melt of finished material, two for tension and two for bending; but in case either test develops flaws, or the tensile test piece breaks outside of the middle third of its gauged length, it may be discarded and another test piece substituted therefor.

Annealed Test Pieces

3. Material which is to be used without annealing or further treatment shall be tested in the condition in which it comes from the rolls. When material is to be annealed or otherwise treated before use, the specimen representing such material shall be similarly treated before testing.

- Marking** 4. Every finished piece of steel shall be stamped with the melt number. Rivet steel may be shipped in bundles securely wired together, with the melt number on a metal tag attached.
- Finish** 5. All plates shall be free from injurious surface defects and have a workmanlike finish.
- Chemical Properties**
- | | |
|------------------------------------|---|
| 6a. Flange or Boiler Steel. | } Maximum Phosphorus .06 " Sulphur .04 |
| 6b. Extra Soft and Fire Box Steel. | |
- Physical Properties** 7. Special Open-hearth Plate and Rivet Steel shall be of three grades, **Extra Soft, Fire Box and Flange or Boiler Steel.**
- Extra Soft Steel** 8. Ultimate strength, 45,000 to 55,000 pounds per square inch.
Elastic limit, not less than one-half the ultimate strength.
Elongation, 28 per cent.
Cold and Quench bends, 180 degrees flat on itself, without fracture on outside of bent portion.
- Fire Box Steel** 9. Ultimate strength, 52,000 to 62,000 pounds per square inch.
Elastic limit, not less than one-half the ultimate strength.
Elongation, 26 per cent.
Cold and Quench bends, 180 degrees flat on itself, without fracture on outside of bent portion.
- Flange or Boiler Steel** 10. Ultimate strength, 55,000 to 65,000 pounds per square inch.
Elastic limit, not less than one-half the ultimate strength.
Elongation, 25 per cent.
Cold and Quench bends, 180 degrees flat on itself, without fracture on outside of bent portion.
- Boiler Rivet Steel** 11. Steel for boiler rivets shall be made of the extra soft grade specified in paragraph No. 8.

**Modifications
in Elongation
for Thin and
Thick Material**

12. For material less than $\frac{5}{16}$ inch, and more than $\frac{3}{4}$ inch in thickness, the following modifications shall be made in the requirements of elongation.

a. For each increase of $\frac{1}{8}$ inch in thickness above $\frac{3}{4}$ inch, a deduction of 1 per cent. shall be made from the specified elongation.

b. For each decrease of $\frac{1}{16}$ inch in thickness below $\frac{5}{16}$ inch, a deduction of $2\frac{1}{2}$ per cent. shall be made from the specified elongation.

c. In rounds of $\frac{5}{8}$ inch or less in diameter, the elongation shall be measured in a length equal to eight times the diameter of section tested.

**Variation in
Weight**

13. The variation in cross-section or weight of more than $2\frac{1}{2}$ per cent. from that specified will be sufficient cause for rejection, except in the case of sheared plates, which will be covered by the following permissible variations:

a. Plates $12\frac{1}{2}$ pounds per square foot or heavier, up to 100 inches wide, when ordered to weight, shall not average more than $2\frac{1}{2}$ per cent. variation above or $2\frac{1}{2}$ per cent. below the theoretical weight. When 100 inches wide and over, 5 per cent. above or 5 per cent. below the theoretical weight.

b. Plates under $12\frac{1}{2}$ pounds per square foot, when ordered to weight, shall not average a greater variation than the following:

Up to 75 inches wide, $2\frac{1}{2}$ per cent. above or $2\frac{1}{2}$ per cent. below the theoretical weight. 75 inches wide up to 100 inches wide, 5 per cent. above or 3 per cent. below the theoretical weight. When 100 inches wide and over 10 per cent. above or 3 per cent. below the theoretical weight.

c. For all plates ordered to gauge there will be permitted an average excess of weight over that corresponding to the dimensions on the order equal in amount to that specified in the following table:

Table of Allowances for Overweight for Rectangular Plates When Ordered to Gauge

Plates will be considered up to gauge if measuring not over $\frac{1}{100}$ inch less than the ordered gauge.

The weight of 1 cubic inch of rolled steel is assumed to be 0.2833 pound.

Plates $\frac{1}{4}$ Inch and Over in Thickness

| Thickness of Plate Inch | WIDTH OF PLATE | | | |
|----------------------------|---------------------------|--------------------------------|----------------------------------|---------------------------|
| | Up to 75 in. Per cent. | 75 in. to 100 in. Per cent. | Over 100 to 115 in. Per cent. | Over 115 in. Per cent. |
| $\frac{1}{4}$ | 10 | 14 | 18 | .. |
| $\frac{5}{16}$ | 8 | 12 | 16 | .. |
| $\frac{3}{8}$ | 7 | 10 | 13 | 17 |
| $\frac{7}{16}$ | 6 | 8 | 10 | 13 |
| $\frac{1}{2}$ | 5 | 7 | 9 | 12 |
| $\frac{9}{16}$ | $4\frac{1}{2}$ | $6\frac{1}{2}$ | $8\frac{1}{2}$ | 11 |
| $\frac{5}{8}$ | 4 | 6 | 8 | 10 |
| Over $\frac{5}{8}$ | $3\frac{1}{2}$ | 5 | $6\frac{1}{2}$ | 9 |

Plates Under $\frac{1}{4}$ Inch in Thickness

| Thickness of Plate Inch | WIDTH OF PLATE | | |
|------------------------------------|---------------------------|-------------------------------|--------------------------|
| | Up to 50 in. Per cent. | 50 in. to 70 in. Per cent. | Over 70 in. Per cent. |
| $\frac{1}{8}$ up to $\frac{5}{32}$ | 10 | 15 | 20 |
| $\frac{5}{32}$ " $\frac{3}{16}$ | $8\frac{1}{2}$ | $12\frac{1}{2}$ | 17 |
| $\frac{3}{16}$ " $\frac{1}{4}$ | 7 | 10 | 15 |

Standard Classification of Extras on Steel Bars and Small Shapes

Rounds and Squares

| Small Sizes. | Extra per 100 lbs. | Large Sizes. | Extra per 100 lbs. |
|--|-----------------------|---|-----------------------|
| $\frac{3}{4}$ to 3 inches..... | Base | $3\frac{1}{16}$ to $3\frac{1}{2}$ inches..... | \$.15 |
| $\frac{5}{8}$ to $\frac{11}{16}$ inch..... | .10 | $3\frac{9}{16}$ to 4 inches..... | .25 |
| $\frac{1}{2}$ to $\frac{9}{16}$ inch..... | .20 | $4\frac{1}{16}$ to $4\frac{1}{2}$ inches..... | .30 |
| $\frac{7}{16}$ inch..... | .40 | $4\frac{9}{16}$ to 5 inches..... | .40 |
| $\frac{3}{8}$ inch..... | .50 | $5\frac{1}{8}$ to $5\frac{1}{2}$ inches..... | .50 |
| $\frac{5}{16}$ inch..... | .60 | $5\frac{5}{8}$ to 6 inches..... | .75 |
| $\frac{1}{4}$ to $\frac{9}{32}$ inch..... | .70 | $6\frac{1}{8}$ to $6\frac{1}{2}$ inches..... | 1.00 |
| $\frac{7}{32}$ inch..... | 1.00 | $6\frac{5}{8}$ to $7\frac{1}{4}$ inches..... | 1.25 |
| $\frac{3}{16}$ inch..... | 2.00 | | |

For intermediate sizes, the next higher extra to be charged.

Ovals

| | Extra per 100 lbs. |
|--|-----------------------|
| $\frac{7}{8}$ inch and larger..... | \$.40 |
| $\frac{3}{4}$ to $\frac{13}{16}$ inch..... | .50 |
| $\frac{5}{8}$ to $\frac{11}{16}$ inch..... | .60 |
| $\frac{1}{2}$ to $\frac{9}{16}$ inch..... | .80 |
| $\frac{3}{8}$ to $\frac{7}{16}$ inch..... | 1.00 |

Half Ovals and Half Rounds

| | Extra per 100 lbs. |
|--|-----------------------|
| $\frac{7}{8}$ inch and larger..... | \$.50 |
| $\frac{3}{4}$ to $\frac{13}{16}$ inch..... | .60 |
| $\frac{5}{8}$ to $\frac{11}{16}$ inch..... | .70 |
| $\frac{1}{2}$ to $\frac{9}{16}$ inch..... | .90 |
| $\frac{3}{8}$ to $\frac{7}{16}$ inch..... | 1.10 |

For intermediate sizes, the next higher extra will be charged.

Hexagons

| | |
|--|---------------------------|
| $\frac{3}{4}$ inch and larger..... | Base |
| $\frac{5}{8}$ to $\frac{11}{16}$ inch..... | \$.20 per 100 lbs. extra |
| $\frac{1}{2}$ to $\frac{9}{16}$ inch..... | .40 per 100 lbs. extra |
| $\frac{7}{16}$ inch..... | .80 per 100 lbs. extra |
| $\frac{3}{8}$ inch..... | 1.00 per 100 lbs. extra |
| $\frac{5}{16}$ inch..... | 1.20 per 100 lbs. extra |

For intermediate sizes, the next higher extra to be charged.

Standard Steel Classification

(Continued)

Flat Bars and Heavy Bands

| | | | | | |
|----------------|--------------------|----------|------------------------------------|-----------------|--------------|
| 1 | to 6 | inches x | $\frac{3}{8}$ to 1 | inch. | Base |
| | | | | | Per 100 lbs. |
| 1 | to 6 | inches x | $\frac{1}{4}$ to $\frac{5}{16}$ | inch. | \$.20 extra |
| $\frac{1}{16}$ | to $\frac{15}{16}$ | inch x | $\frac{3}{8}$ to $\frac{3}{4}$ | inch. | .40 extra |
| $\frac{1}{16}$ | to $\frac{15}{16}$ | inch x | $\frac{1}{4}$ to $\frac{5}{16}$ | inch. | .50 extra |
| $\frac{9}{16}$ | to $\frac{5}{8}$ | inch x | $\frac{3}{8}$ to $\frac{1}{2}$ | inch. | .50 extra |
| $\frac{9}{16}$ | to $\frac{5}{8}$ | inch x | $\frac{1}{4}$ to $\frac{5}{16}$ | inch. | .70 extra |
| $\frac{1}{2}$ | | inch x | $\frac{3}{8}$ to $\frac{7}{16}$ | inch. | .90 extra |
| $\frac{1}{2}$ | | inch x | $\frac{1}{4}$ to $\frac{5}{16}$ | inch. | 1.10 extra |
| $\frac{7}{16}$ | | inch x | $\frac{3}{8}$ | inch. | 1.00 extra |
| $\frac{7}{16}$ | | inch x | $\frac{1}{4}$ to $\frac{5}{16}$ | inch. | 1.20 extra |
| $\frac{3}{8}$ | | inch x | $\frac{1}{4}$ to $\frac{5}{16}$ | inch. | 1.50 extra |
| $1\frac{1}{8}$ | to 6 | inches x | $1\frac{1}{16}$ to $1\frac{3}{16}$ | inches. | .10 extra |
| $1\frac{1}{8}$ | to 6 | inches x | $1\frac{1}{4}$ to $1\frac{1}{2}$ | inches. | .20 extra |
| $1\frac{3}{4}$ | to 6 | inches x | $1\frac{5}{8}$ to $2\frac{3}{4}$ | inches. | .30 extra |
| $3\frac{1}{8}$ | to 6 | inches x | 3 to 4 | inches. | .40 extra |

For intermediate sizes, the next higher extra to be charged.

Light Bars and Bands

| | | | | | |
|-----------------|--------------------|-------|-----------------------------------|-------------|--------------|
| | | | | | Per 100 lbs. |
| $1\frac{1}{2}$ | to 6 | in. x | Nos. 7, 8, 9 and $\frac{3}{16}$ | in. | \$.40 extra |
| $1\frac{1}{2}$ | to 6 | in. x | Nos. 10, 11, 12 and $\frac{1}{8}$ | in. | .60 extra |
| 1 | to $1\frac{7}{16}$ | in. x | Nos. 7, 8, 9 and $\frac{3}{16}$ | in. | .50 extra |
| 1 | to $1\frac{7}{16}$ | in. x | Nos. 10, 11, 12 and $\frac{1}{8}$ | in. | .70 extra |
| $\frac{13}{16}$ | to $\frac{15}{16}$ | in. x | Nos. 7, 8, 9 and $\frac{3}{16}$ | in. | .70 extra |
| $\frac{13}{16}$ | to $\frac{15}{16}$ | in. x | Nos. 10, 11, 12 and $\frac{1}{8}$ | in. | .80 extra |
| $\frac{11}{16}$ | to $\frac{3}{4}$ | in. x | Nos. 7, 8, 9 and $\frac{3}{16}$ | in. | 1.00 extra |
| $\frac{11}{16}$ | to $\frac{3}{4}$ | in. x | Nos. 10, 11, 12 and $\frac{1}{8}$ | in. | 1.20 extra |
| $\frac{9}{16}$ | to $\frac{5}{8}$ | in. x | Nos. 7, 8, 9 and $\frac{3}{16}$ | in. | 1.20 extra |
| $\frac{9}{16}$ | to $\frac{5}{8}$ | in. x | Nos. 10, 11, 12 and $\frac{1}{8}$ | in. | 1.30 extra |
| $\frac{1}{2}$ | | x | Nos. 7, 8, 9 and $\frac{3}{16}$ | in. | 1.30 extra |
| $\frac{1}{2}$ | | x | Nos. 10, 11, 12 and $\frac{1}{8}$ | in. | 1.50 extra |
| $\frac{7}{16}$ | | x | Nos. 7, 8, 9 and $\frac{3}{16}$ | in. | 1.80 extra |
| $\frac{7}{16}$ | | x | Nos. 10, 11, 12 and $\frac{1}{8}$ | in. | 2.10 extra |
| $\frac{3}{8}$ | | x | Nos. 7, 8, 9 and $\frac{3}{16}$ | in. | 1.90 extra |
| $\frac{3}{8}$ | | x | Nos. 10, 11, 12 and $\frac{1}{8}$ | in. | 2.40 extra |

For intermediate sizes, the next higher extra to be charged.

Standard Steel Classification

(Continued)

Angles

| | |
|---|--|
| $1\frac{1}{2}$ x $\frac{3}{16}$ inches and heavier, but under 3 inches..... | Base |
| 1 to $1\frac{1}{4}$ x $\frac{3}{16}$ in. and heavier..... | \$.10 per 100 lbs. extra |
| $\frac{7}{8}$ x $\frac{3}{16}$ inch..... | .20 per 100 lbs. extra |
| $\frac{3}{4}$ x $\frac{3}{16}$ inch..... | .30 per 100 lbs. extra |
| $\frac{5}{8}$ x $\frac{1}{8}$ inch..... | 2.00 per 100 lbs. extra |
| $\frac{1}{2}$ x $\frac{1}{8}$ inch..... | 3.00 per 100 lbs. extra |
| 3 x 3 in. less than $\frac{1}{4}$ in. thick..... | .50 per 100 lbs. extra |
| Angles $\frac{3}{4}$ inch and larger, but smaller than 3 inches, $\frac{1}{8}$ inch thick.. | 10c per 100 lbs. over $\frac{3}{16}$ in. |
| For intermediate sizes, the next higher extra to be charged. | |

Channels

| | |
|---|--|
| $1\frac{1}{2}$ x $\frac{3}{16}$ inches and heavier, but under 3 inches..... | Base |
| 1 to $1\frac{1}{4}$ x $\frac{3}{16}$ in. and heavier..... | \$.10 per 100 lbs. extra |
| $\frac{7}{8}$ x $\frac{3}{16}$ inch..... | .20 per 100 lbs. extra |
| $\frac{5}{8}$ and $\frac{3}{4}$ x $\frac{3}{16}$ inch..... | .30 per 100 lbs. extra |
| $\frac{5}{8}$ x $\frac{1}{8}$ inch..... | .60 per 100 lbs. extra |
| $\frac{1}{2}$ x $\frac{1}{8}$ inch and thicker..... | 1.00 per 100 lbs. extra |
| Channels $\frac{3}{4}$ inch and wider, but under 3 inches, $\frac{1}{8}$ inch thick.. | 10c per 100 lbs. over $\frac{3}{16}$ in. |
| For intermediate sizes, the next higher extra to be charged. | |

Tees

| | |
|---|--|
| $1\frac{1}{2}$ x $\frac{3}{16}$ inches and heavier, but under 3 inches..... | Base |
| $1\frac{1}{4}$ x $\frac{3}{16}$ inches and heavier..... | \$.10 per 100 lbs. extra |
| 1 to $1\frac{1}{8}$ x $\frac{3}{16}$ in. and heavier..... | .20 per 100 lbs. extra |
| $\frac{7}{8}$ x $\frac{1}{8}$ inch and thicker.... | .50 per 100 lbs. extra |
| $\frac{3}{4}$ x $\frac{1}{8}$ inch and thicker..... | .60 per 100 lbs. extra |
| $\frac{5}{8}$ x $\frac{1}{8}$ inch and thicker..... | 2.00 per 100 lbs. extra |
| Tees 1 inch and larger, but smaller than 3 inches, $\frac{1}{8}$ inch thick.. | 10c per 100 lbs. over $\frac{3}{16}$ in. |
| For intermediate sizes, the next higher extra to be charged. | |

Flat Spring Steel

Open Hearth

All extras per 100 lbs.

| | | |
|--|------------------------------------|--------------|
| $1\frac{1}{4}$ inches to 6 inches | x No. 4 to $\frac{1}{2}$ inch..... | Base |
| 1 inch and $1\frac{1}{8}$ inches | x Nos. 1 to 4 inches.. | \$0.20 extra |
| 1 inch to 3 inches | x Nos. 5 to 7 inches.. | .50 extra |
| $\frac{3}{4}$ inch and $\frac{5}{16}$ inch | x Nos. 1 to 7..... | .50 extra |
| $\frac{3}{8}$ inch to $\frac{11}{16}$ inch | x Nos. 1 to 7..... | 1.00 extra |
| $\frac{3}{4}$ inch to 3 inch | x Nos. 8 to 10..... | 1.00 extra |
| $\frac{3}{4}$ inch to 3 inch | x Nos. 11 to 16..... | 1.50 extra |
| $\frac{3}{4}$ inch to 3 inches | x Nos. 17 to 20..... | 2.20 extra |
| $\frac{3}{8}$ inch to $\frac{5}{8}$ inch | x Nos. 10 to 16..... | 4.00 extra |
| $\frac{3}{8}$ inch to $\frac{5}{8}$ inch | x Nos. 17 to 20..... | 5.00 extra |

Standard Steel Classification

(Continued)

Round Spring Steel

Open Hearth

| | |
|---|--------------|
| $\frac{5}{8}$ inch. to $1\frac{1}{2}$ inches. | Base |
| $\frac{1}{2}$ inch to $\frac{9}{16}$ inches. | \$0.20 extra |
| $\frac{3}{8}$ inch to $\frac{7}{16}$ inch. | .50 extra |
| $\frac{3}{16}$ inch. | 1.00 extra |
| $\frac{1}{4}$ inch. | 1.50 extra |

Quantity Differentials

All specifications for less than 2,000 lbs. of a size will be subject to the following extras, the total weight of a size ordered to determine the extra, regardless of length and regardless of exact quantity actually shipped.

Quantities less than 2,000 lbs., but

not less than 1,000 lbs. \$.20 per 100 lbs. extra

Quantities less than 1,000 lbs.60 per 100 lbs. extra

Extras for Cutting to Specified Lengths

| | |
|---|--------------|
| | Per 100 lbs. |
| Hot sawing or shearing, 24 to 60 inches. | \$.10 |
| Hot sawing or shearing, 12 to 24 inches. | .20 |
| Shearing, under 12 inches. | .30 |
| Machine cutting, specified lengths above 24 inches | .20 |
| Machine cutting, specified lengths, 12 to 24 inches. . . . | .40 |
| Machine cutting, to specified lengths, less than 12 inches according to contract, but not less than 60c on each size. | |

No charge for shearing to multiple lengths of 12 inches and under.

No extra charge for hot shearing to lengths of 5 feet and over.

Machine Straightening and Centering

| | |
|---|--------|
| Machine straightening and centering. | \$.40 |
| Machine straightening alone, for ordinary sizes | .20 |

Standard Steel Classification

(Continued)

Mill Extras on Structural Shapes for Size and Cutting

| | |
|---|---------------------------|
| Angles larger than 6 in. on one or both legs. | \$.10 extra per 100 lbs. |
| Beams 18, 20 and 24 in. | .10 extra per 100 lbs. |
| Cutting to length under 5 feet to 2 feet. | .25 extra per 100 lbs. |
| Cutting to length under 2 feet to 1 foot. | .50 extra per 100 lbs. |
| Cutting to length under 1 foot. | 1.55 extra per 100 lbs. |

Standard Variations in Shearing

The following standard variations in shearing have been adopted by the mills rolling hot rolled steel. All orders we undertake are subject to these variations whether the material is ordered the exact length or not:

| Bars and shapes to specified lengths | Over | Under |
|---|--------------------|----------------------|
| Rounds and squares up to 2 inch. | $\frac{1}{4}$ inch | $\frac{1}{4}$ inch |
| Rounds and squares 2 in. to 3 in. incl. | $\frac{3}{8}$ inch | $\frac{3}{8}$ inch |
| Rounds and squares 3 in. to 4 $\frac{1}{2}$ in. (incl.) up to and including 20 ft. long. | $\frac{3}{4}$ inch | $\frac{3}{4}$ inch |
| Rounds and squares over 3 inch to 4 $\frac{1}{2}$ inch (incl.), over 20 ft. long. | $\frac{3}{4}$ inch | 1 inch |
| Rounds over 4 $\frac{1}{2}$ inch to 7 $\frac{1}{4}$ inch (incl.) up to and including 20 ft. long. | $\frac{3}{4}$ inch | $\frac{3}{4}$ inch |
| Rounds over 4 $\frac{1}{4}$ inch to 7 $\frac{1}{4}$ inch (incl.), over 20 ft. long. | $\frac{3}{4}$ inch | 1 $\frac{1}{4}$ inch |
| Flats 1 inch to 3 inch wide (incl.) | $\frac{1}{4}$ inch | $\frac{1}{4}$ inch |
| Flats over 3 inch to 6 inch, up to and including 20 ft. long. | $\frac{3}{8}$ inch | $\frac{3}{4}$ inch |
| Flats over 3 inch to 6 inch wide, over 20 ft. long. | $\frac{5}{8}$ inch | 1 $\frac{1}{4}$ inch |
| Shapes up to but not including 3 inch. | $\frac{1}{4}$ inch | $\frac{1}{4}$ inch |
| Structural | Over | Under |
| Beams and channels. | $\frac{3}{8}$ inch | $\frac{3}{8}$ inch |
| Angles—Z and other shapes. | $\frac{3}{4}$ inch | 0 |
| Universal plates, length. | $\frac{3}{4}$ inch | 0 |
| Sheared plates, length, width. | $\frac{1}{4}$ inch | $\frac{1}{4}$ inch |

Open Hearth Sheet Steel

Black and Galvanized

THE following pages cover the present production of our Sheet Mills and Galvanizing and Roofing Departments.

All Sheet Bars we use are Open Hearth Steel of our own making and rolling, the quality, or analysis, of which is carefully controlled to secure the best results in the finished material for whatever purpose it may be required.

We can make up promptly assorted carloads of Black and Galvanized Flat Sheets, and Roofing.

We operate the only Sheet Mill in the West.

Our location and the fact that we manufacture our own steel, insures our ability to make quick delivery and lowest prices.

Orders and inquiries solicited.

INLAND STEEL COMPANY.

Guarantee of Quality

Below will be found a fac-simile of the brand we use on Sheet Steel.



INLAND STEEL CO.
CHICAGO

We guarantee the quality of every sheet or bundle of steel on which this brand appears.

We propose to make it stand for the best steel that can be made, so that sheet metal workers will demand it and engineers specify it.

INLAND STEEL COMPANY.

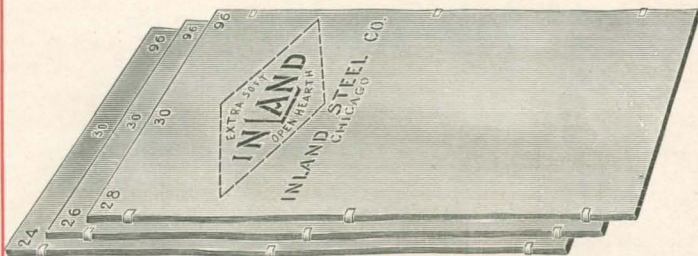
Open Hearth Sheet Steel

INLAND Open Hearth Steel Sheets have established so widespread a reputation for quality, workability and durability that we need only point to the fact that they are given the preference today, at even prices by the largest and most exacting buyers in the West.

The line is complete, embracing as it does the following qualities, all rolled from our own Open Hearth Steel:

- Blue Annealed Sheets.
- One Pass Cold Rolled and
Box Annealed Sheets.
- Pickled and Cold Rolled Sheets.
- Electrical Sheets.
- Deep-Stamping and Drawing Sheets.
- Double Seaming Sheets.
- Patent Leveled Sheets.
- Galvanized Sheets.
- Corrugated Sheets.
- Roofing and Siding.

Open Hearth Steel
Blue Annealed Sheets



Gauges No. 000 ($\frac{3}{8}$) to 16
See page 142 for extreme sizes.
These sizes also furnished in Tank (Red) finish.

Open Hearth Steel
**One-Pass Cold Rolled and
Box Annealed Sheets**

Gauges No. 10 to 30.
See page 142 for extreme sizes.

Open Hearth Steel
**Pickled and Cold Rolled
Sheets**

The perfection of our Sheet Mill equipment is nowhere better illustrated than in the high average quality of our Pickled and Cold Rolled Sheets.

Open Hearth Steel Electrical Sheets

High Efficiency

MAKING our own Steel as we do, from the ore up, we have every facility for giving the electrical engineer Sheets of exactly the analysis his work requires, and our long expert experience in the manufacture of Electrical Sheets enables us to co-operate with the manufacturers of electrical machinery with intelligence and marked success.

Inland Sheets have a wide acceptance not only in the West, but on the Atlantic seaboard as well, for use in armature and transformer discs, field coils, etc., because of the high electrical efficiency which they develop in the machines in which they are used.

Open Hearth Steel Double Seaming Sheets

Inland Open Hearth Double Seaming Sheets are soft in texture, uniform in gauge and exceptionally free from hard spots or laminations.

Open Hearth Steel

Patent Leveled Sheets

THE fact that Inland Patent Leveled Sheets are in full favor with the large Harvester manufacturers for use in their twine binder platforms and by other industries, gives an idea of the care with which we do our leveling and the rigidity of our inspection of the finished product.

Inland Open Hearth Patent Leveled Sheets are absolutely flat—not sometimes but always—and they stay flat.

Open Hearth Steel

Deep Stamping and Drawing Sheets

THIS Steel is admirably adapted to the requirements of the metal worker who must have a steel of great toughness and workability, for the spinning lathe or the drawing bench. It is equally suited to the deep, quick draw of the heavy stamping presses used in modern shops.

As we cast our own ingots from formulas suited to the work in hand, and roll our own Sheet Bars, we absolutely control and are able to guarantee the quality of our product.

Open Hearth Steel Extra Soft Galvanized Sheets



Well coated, absolutely flat, soft and easy working.

We furnish all gauges, Nos. 14 to 30.

Sizes No. 14 to 24 up to 48 inches wide, to 144 inches long.

Sizes No. 25 and lighter see page 142 for maximum widths and lengths.

Weights per square foot

| No. GAUGE. | 30 | 29 | 28 | 27 | 26 | 25 | 24 | 23 |
|--|-----|-----|-----|-----|-----|-----|-----|-----|
| Weight per square foot in ounces | 10½ | 11½ | 12½ | 13½ | 14½ | 16½ | 18½ | 20½ |

| No. GAUGE | 22 | 21 | 20 | 19 | 18 | 16 | 14 |
|--|-----|-----|-----|-----|-----|-----|-----|
| Weight per square foot in ounces | 22½ | 24½ | 26½ | 30½ | 34½ | 42½ | 52½ |

Open Hearth Steel Corrugated Sheets

Corrugations 3 inches wide, $\frac{3}{4}$ inch deep



Made in Black, Painted or Galvanized Sheets, No. 14 gauge and lighter. Full width 26 inches. Covering width 24 inches when lapped one corrugation. Standard lengths 5, 6, 7, 8, 9 and 10 feet. Maximum length, 12 feet.



Weights per square, in pounds

| GAUGE. | 28 | 27 | 26 | 25 | 24 | 23 | 22 | 20 | 18 | 16 | 14 |
|------------------|----|----|----|-----|-----|-----|-----|-----|-----|-----|----------|
| Painted. | 68 | 76 | 83 | 96 | 110 | 123 | 136 | 163 | 217 | 271 | 341 lbs. |
| Galvanized. . . | 85 | 91 | 98 | 111 | 124 | 138 | 151 | 178 | 232 | 286 | 356 lbs. |

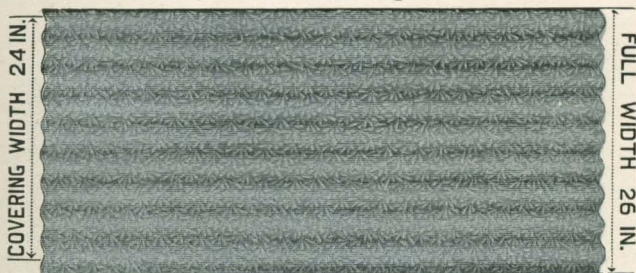
See pages 138 to 141

Open Hearth Steel Corrugated Sheets

Corrugations $2\frac{1}{2}$ inches wide, $\frac{5}{8}$ inch deep



Made in Black, Painted or Galvanized Sheets, No. 14 gauge and lighter. Full width 26 inches. Covering width 24 inches when lapped one corrugation. Standard lengths, 5, 6, 7, 8, 9 and 10 feet. Maximum length 12 feet.



Weights per square, in pounds

| GAUGE | 29 | 28 | 27 | 26 | 25 | 24 | 23 | 22 | 20 | 18 | 16 | 14 |
|------------------|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|----------|
| Painted. | 60 | 68 | 76 | 83 | 96 | 110 | 123 | 136 | 163 | 217 | 271 | 341 lbs. |
| Galvanized . . . | 77 | 85 | 91 | 98 | 111 | 124 | 138 | 151 | 178 | 232 | 286 | 356 lbs. |

$2\frac{1}{2}$ inch Corrugation being generally used we carry a large stock of Black, Painted and Galvanized, in all lengths.

See pages 138 to 141

Open Hearth Steel Corrugated Sheets

Corrugations 2 inches wide, $\frac{1}{2}$ inch deep



Made in Black, Painted or Galvanized Sheets, No. 16 gauge and lighter. Full width 26 inches. Covering width 24 inches when lapped one corrugation. Standard lengths, 5, 6, 7, 8, 9 and 10 feet. Maximum length, 12 feet.



Weights per square, in pounds

| GAUGE | 29 | 28 | 27 | 26 | 25 | 24 | 23 | 22 | 21 | 20 | 18 | 16 |
|----------------------|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|----------|
| Painted | 60 | 68 | 76 | 83 | 96 | 110 | 123 | 136 | 150 | 163 | 217 | 271 lbs. |
| Galvanized | 77 | 85 | 91 | 98 | 111 | 124 | 138 | 151 | 165 | 178 | 232 | 286 lbs. |

See pages 138 to 141

Open Hearth Steel Corrugated Sheets

Corrugations $1\frac{1}{4}$ inches wide, $\frac{3}{8}$ inch deep



Made in Black, Painted or Galvanized Sheets, No. 22 gauge and lighter. Full width 25 inches. Covering width 24 inches when lapped one corrugation. Standard lengths, 5, 6, 7, 8, 9 and 10 feet. Maximum length, 12 feet.



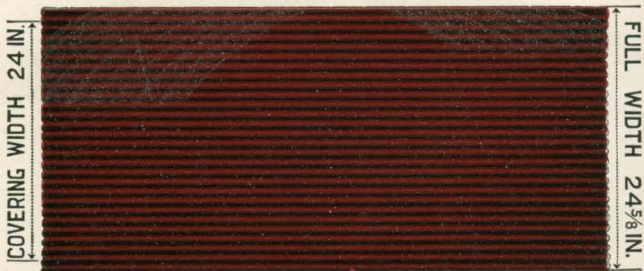
Weights per square, in pounds

| GAUGE | 29 | 28 | 27 | 26 | 25 | 24 | 22 |
|----------------------|----|----|----|-----|-----|-----|----------|
| Painted | 64 | 72 | 79 | 86 | 100 | 114 | 142 lbs. |
| Galvanized | 79 | 87 | 94 | 101 | 115 | 129 | 157 lbs. |

See pages 138 to 141

Open Hearth Steel Corrugated Sheets

Corrugations $\frac{5}{8}$ inch wide, $\frac{3}{16}$ inch deep



Made in Black, Painted or Galvanized Sheets, No. 24 gauge and lighter. Full width $24\frac{5}{8}$ inches. Covering width 24 inches when lapped one corrugation. Standard lengths, 5, 6, 7, 8, 9 and 10 feet. Maximum length, 12 feet.

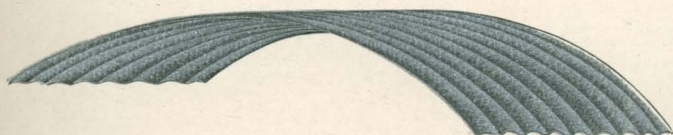


Weights per square, in pounds

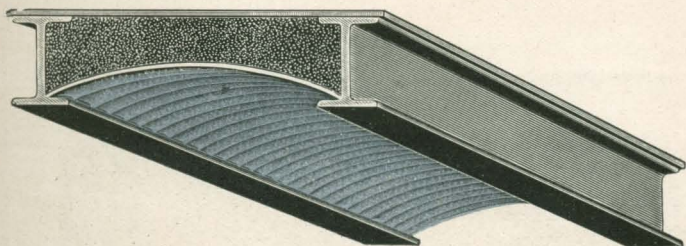
| GAUGE. | 29 | 28 | 27 | 26 | 25 | 24 |
|---------------------|----|----|----|-----|-----|----------|
| Painted. | 64 | 72 | 79 | 86 | 100 | 114 lbs. |
| Galvanized. | 79 | 87 | 94 | 101 | 115 | 129 lbs. |

See pages 138 to 141

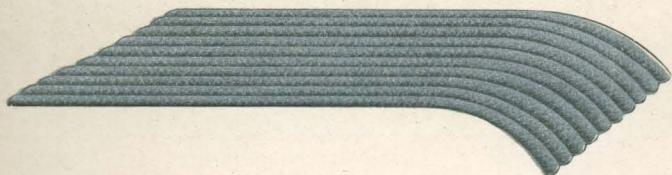
Open Hearth Steel
Curved Corrugated Sheets



Made in Black, Painted or Galvanized Sheets, No. 16 gauge and lighter. Standard 2½ inch corrugations in lengths up to and including 12 feet. Curved to any radius.



Curved Corrugated Sheets for ceilings applied in connection with beams.



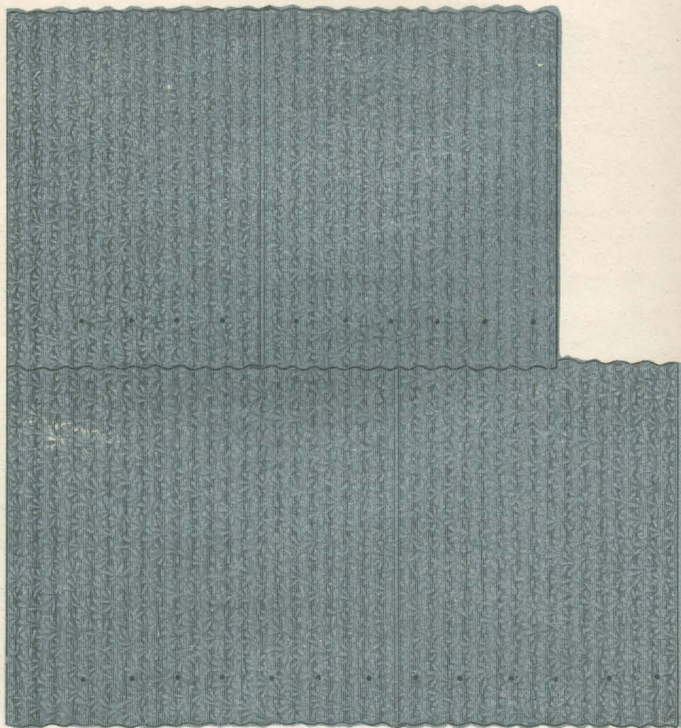
Single Curved Corrugated Sheets are used extensively for awnings.

We also furnish Double Curved Corrugated Sheets for awnings.

Open Hearth Steel Corrugated Elevator Siding

1¼, 2 and 2½ inch Corrugations

Made expressly for high buildings where there is a liability of building settling. Made in Black, Painted or Galvanized, all gauges.



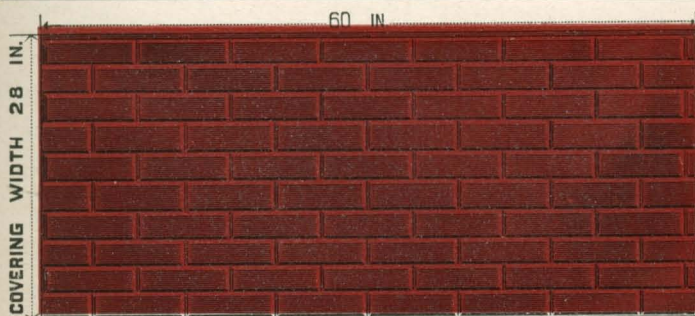
The 2 and 2½ inch Corrugated Sheets are standard and measure 26 inches wide by 32 inches long, and lay 24 inches to the weather.

The 1¼ inch Corrugated Sheets measure 25 inches wide and 32 inches long, and lay 24 inches to the weather.

The sheets are laid with a 2 inch end lap and nailed 2 inches above upper edge of lower sheets. This protects the sheets from buckling or drawing of nails should building settle.

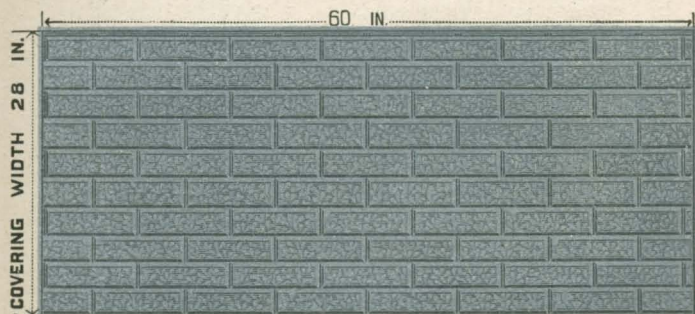
Open Hearth Steel Pressed Brick Siding

28x60 Inch



Made in Black, Painted or Galvanized Sheets, No. 24 gauge and lighter, 8 $\frac{9}{10}$ sheets per square, 28 inches wide by 60 inches long.

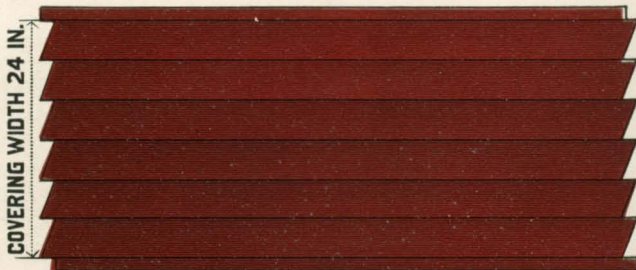
Pattern is exact size of Pressed Brick, 2 $\frac{5}{8}$ x 8 $\frac{1}{2}$ inches.



Weights per square, in pounds

| GAUGE..... | 28 | 27 | 26 | 24 |
|-----------------|----|----|----|----------|
| Painted..... | 64 | 71 | 77 | 103 lbs. |
| Galvanized..... | 78 | 85 | 91 | 128 lbs. |

Open Hearth Steel Weatherboard Siding



Made in Black, Painted or Galvanized Sheets, No. 22 gauge and lighter. Covering width 24 inches. Standard lengths, 5, 6, 7, 8, 9 and 10 feet. Maximum length, 12 feet.



Weights per square, in pounds

| GAUGE | 28 | 27 | 26 | 24 | 22 |
|----------------------|----|----|-----|-----|----------|
| Painted | 75 | 82 | 89 | 119 | 148 lbs. |
| Galvanized | 91 | 98 | 106 | 135 | 164 lbs. |

See pages 138 to 141

Open Hearth Steel Beaded Ceiling and Siding



Made in Black, Painted or Galvanized Sheets, No. 24 gauge and lighter. Covering width 24 inches. Standard lengths, 5, 6, 7, 8, 9 and 10 feet. Maximum length, 12 feet. Beads are 3 inches from center to center.



Weights per square, in pounds

| GAUGE | 28 | 27 | 26 | 24 |
|----------------------|----|----|----|----------|
| Painted | 70 | 76 | 83 | 110 lbs. |
| Galvanized | 85 | 91 | 98 | 125 lbs. |

See pages 138 to 141

Open Hearth Steel V-Crimped Roofing

Two Crimps



Made in Black, Painted or Galvanized Sheets, No. 20 gauge and lighter. Covering width 24 inches. Standard lengths, 5, 6, 7, 8, 9 and 10 feet. Maximum length, 12 feet. Wood sticks furnished if desired, at regular extra. With locked ends at regular extra.



Weights per square, in pounds.

| GAUGE..... | 29 | 28 | 27 | 26 | 24 | 22 | 20 |
|---------------|----|----|----|----|-----|-----|----------|
| Painted. | 62 | 70 | 76 | 83 | 110 | 137 | 164 lbs. |
| Galvanized .. | 77 | 85 | 91 | 98 | 125 | 152 | 179 lbs. |

Add about 4 lbs. per square for sticks.

See pages 138 to 141

Open Hearth Steel Three V-Crimped Roofing

Three Crimps



Made in Black, Painted or Galvanized Sheets, No. 20 gauge and lighter. Covering width 24 inches.

Standard lengths, 5, 6, 7, 8, 9 and 10 feet. Maximum length, 12 feet.

Wood sticks furnished if desired, at regular extra.

With locked ends at regular extra.



Weights per square, in pounds.

| GAUGE..... | 28 | 27 | 26 | 24 | 22 | 20 |
|-----------------|----|----|-----|-----|-----|----------|
| Painted..... | 72 | 79 | 86 | 114 | 142 | 170 lbs. |
| Galvanized..... | 88 | 95 | 102 | 130 | 158 | 186 lbs. |

Add 8 lbs. per square for sticks.

See pages 138 to 141

Open Hearth Steel Pressed Standing-Seam Roofing

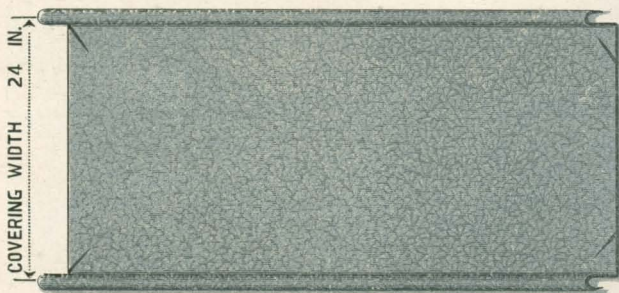


Made in Black, Painted or Galvanized Sheets, No. 24 gauge and lighter. Covering width 24 inches.

Standard lengths, 5, 6, 7, 8, 9 and 10 feet. Maximum length 12 feet.

Cleats furnished unless otherwise ordered.

With locked ends at regular extra.

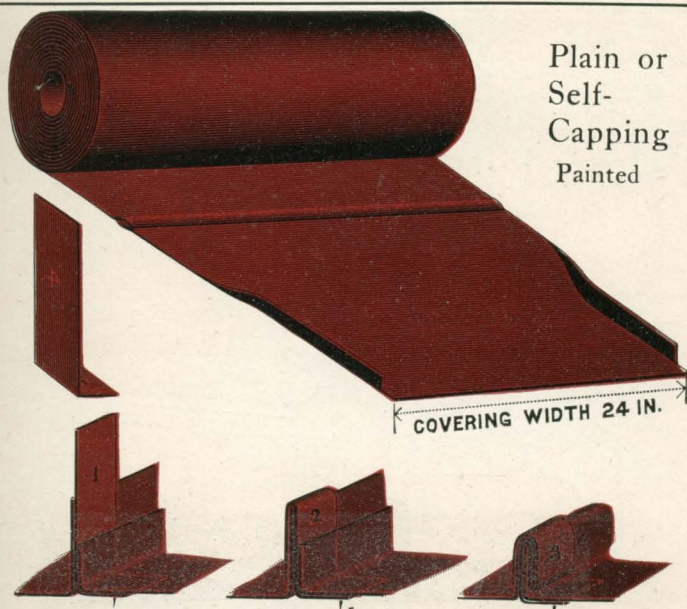


Weights per square with cleats, in pounds

| GAUGE | 29 | 28 | 27 | 26 | 24 |
|----------------------|----|----|----|-----|----------|
| Painted | 65 | 73 | 79 | 86 | 113 lbs. |
| Galvanized | 79 | 87 | 94 | 101 | 128 lbs. |

See pages 138 to 141

Open Hearth Steel Roll Roofing



Plain or
Self-
Capping
Painted

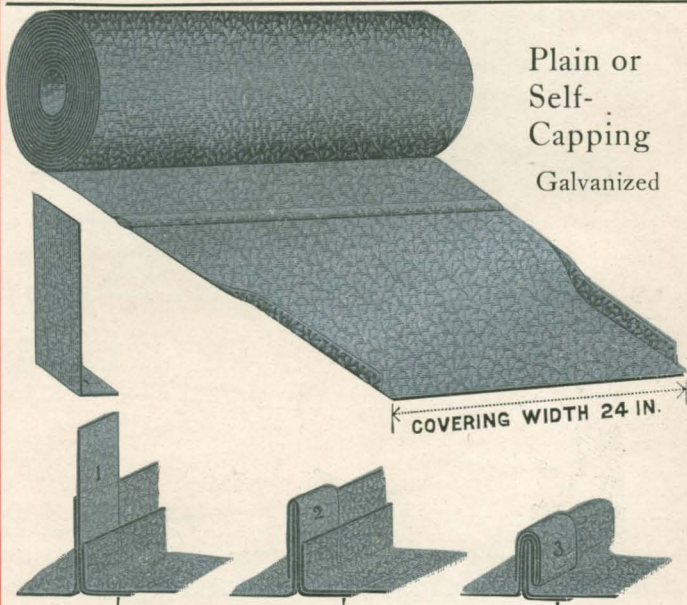
- Fig. 1. Cleat in position and nailed to sheathing.
 Fig. 2. Cleat turned down over the $1\frac{3}{4}$ inch turned up edge.
 Fig. 3. Shows the $1\frac{3}{4}$ inch edge and the cleat folded over the 1 inch turned up edge.
 Fig. 4. Shows cleat as shipped.

Made in Black, Painted or Galvanized Sheets, No. 24 gauge and lighter. Full width $26\frac{1}{2}$ inches. Each roll contains 50 lineal feet, and when applied in the usual manner will cover 100 square feet of surface. Cleats furnished if desired; cross locks are regularly single seamed, but double seamed locks can be furnished.

Weights (in pounds) per square without cleats

| | | | | | |
|------------------|----|----|----|----|----------|
| GAUGE. | 29 | 28 | 27 | 26 | 24 |
| Painted. | 64 | 72 | 79 | 86 | 114 lbs. |

Open Hearth Steel Roll Roofing



Plain or
Self-
Capping
Galvanized

- Fig. 1. Cleat in position and nailed to sheathing.
 Fig. 2. Cleat turned down over the $1\frac{3}{4}$ inch turned up edge.
 Fig. 3. Shows the $1\frac{3}{4}$ inch edge and the cleat folded over the 1 inch turned up edge.
 Fig. 4. Shows cleat as shipped.

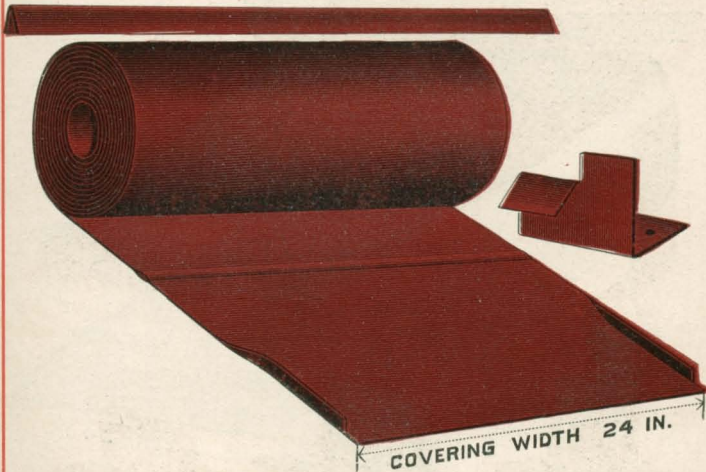
Made in Black, Painted or Galvanized Sheets, No. 24 gauge and lighter. Full width $26\frac{1}{2}$ inches. Each roll contains 50 lineal feet, and when applied in the usual manner will cover 100 square feet of surface. Cleats furnished if desired; cross locks are regularly single seamed, but double seamed locks can be furnished.

Weights (in pounds) per square without cleats

| | | | | | |
|----------------|----|----|----|-----|---------|
| GAUGE. | 29 | 28 | 27 | 26 | 24 |
| Galvanized. | 80 | 88 | 95 | 102 | 130 lbs |

For Cleats add 1 lb. per square.

Open Hearth Steel
Roll and Cap Roofing
 Painted



Made in Black, Painted or Galvanized Sheets, No. 24 gauge and lighter. 26 inches wide.

Each roll contains 50 lineal feet, and when applied in the usual manner will cover 100 square feet of surface.

The distinctive feature of this roofing is that the cap is locked to the cleat or anchor which holds it firmly to the standing seam.

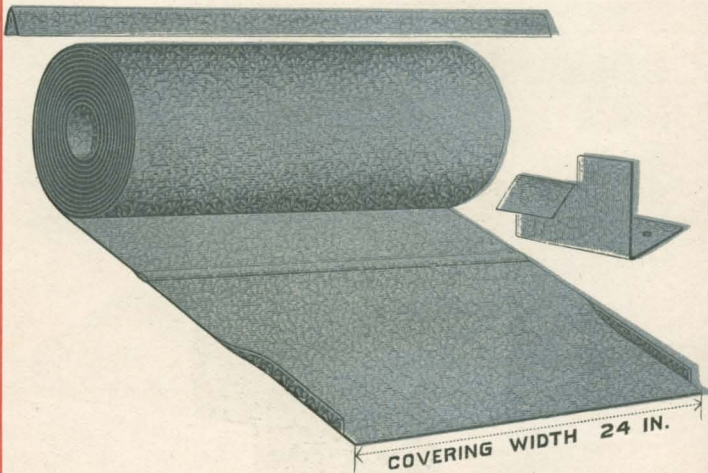
Caps and cleats supplied unless otherwise specified.

Galvanized—Weights (in pounds) per square with caps and cleats

| | | | | |
|------------------|----|----|----|----------|
| GUAGE. | 28 | 27 | 26 | 24 |
| Painted. | 77 | 84 | 91 | 119 lbs. |

Without painted caps and cleats deduct 6 lbs. per square.

Open Hearth Steel
Roll and Cap Roofing
 Galvanized



Made in Black, Painted or Galvanized Sheets, No. 24 gauge and lighter. 26 inches wide.

Each roll contains 50 lineal feet, and when applied in the usual manner will cover 100 square feet of surface.

The distinctive feature of this roofing is that the cap is locked to the cleat or anchor which holds it firmly to the standing seam.

Caps and cleats supplied unless otherwise specified.

Galvanized—Weights (in pounds) per square, with caps and cleats

| | | | | |
|---------------------|----|-----|-----|----------|
| GAUGE. | 28 | 27 | 26 | 24 |
| Galvanized. | 93 | 100 | 106 | 134 lbs. |

Without galvanized caps and cleats deduct 7 lbs. per square.

Open Hearth Steel Valleys



Galvanized Steel, furnished in rolls of 50 lineal feet.

Price List—per lineal foot—No. 28 gauge.
Other gauges in proportion.

| | |
|-------------------|---------|
| 10 inch | \$0.12½ |
| 14 inch | .17½ |
| 20 inch | .25 |
| 24 inch | .30 |
| 28 inch | .35 |
| 30 inch | .37½ |

Discounts on application.

All valleys are locked unless otherwise ordered.

General Information and Rules of Measurement in Ordering Sheet Steel Roofing

All roofing, siding, ceiling, etc., except galvanized, is painted both sides unless otherwise ordered.

All roofing, siding and ceiling is sold by the square (100 square feet), except Corrugated Sheets, which are sold by the square or pound, as preferred.

A square consists of 100 square feet, and is calculated by the following rules of measurement:

For Corrugated Roofing and Siding and Pressed Brick Siding—The full width and length of sheets, after being corrugated or formed, are calculated. No allowance is made for side or end laps.

For V-Crimped, Beaded Ceiling and Weather-board Siding—The full length of sheets, by the actual covering width, is calculated.

Pressed Standing Seam Roofing—Seams are allowed, therefore will lay 100 square feet to the square, except lock or lap at end.

Roofing Extras

Extras for widths and lengths same as on flat sheets. (See pages 149 to 151.)

Extra for forming under 60 inches 5 cents per 100 lbs.

11 and 12 foot lengths, 10 cents per square extra.

Galvanized Roofing, painted, 10 cents per square extra.

Sheets corrugated crosswise, 10 cents per square extra.

Crating, 10 cents per square extra.

Painting with Graphite, special.

Number of Square Feet of Corrugated Sheets to Cover One Square

As no allowance is made for laps, the following table gives the number of square feet of corrugated sheet steel necessary to cover **ONE** square. This table is based on using sheets 26 inches wide and 96 inches long; if longer or shorter sheets are used, the number of square feet will vary accordingly.

2, 2½ and 3 inch

| END LAPS.. | 1 inch | 2 inch | 3 inch | 4 inch | 5 inch | 6 inch |
|-------------------------|---------|---------|---------|---------|---------|---------|
| Side Lap, 1 Corrugation | 110 ft. | 111 ft. | 112 ft. | 113 ft. | 114 ft. | 115 ft. |
| " 1¼ " | 116 ft. | 117 ft. | 118 ft. | 119 ft. | 120 ft. | 121 ft. |
| " 2 " | 123 ft. | 124 ft. | 125 ft. | 126 ft. | 127 ft. | 128 ft. |

1¼ inch

| END LAPS.. | 1 inch | 2 inch | 3 inch | 4 inch | 6 inch |
|-------------------------|---------|---------|---------|---------|---------|
| Side Lap, 1 Corrugation | 107 ft. | 108 ft. | 109 ft. | 110 ft. | 113 ft. |
| " 1½ " | 110 ft. | 111 ft. | 112 ft. | 113 ft. | 116 ft. |
| " 2 " | 113 ft. | 114 ft. | 115 ft. | 117 ft. | 119 ft. |

Number of Sheets per Square

The following tables show the number of sheets shipped for each square of roofing ordered.

Corrugated 2, 2½ and 3 inch

| LENGTH.. | 4 ft. | 5 ft. | 6 ft. | 7 ft. | 8 ft. | 9 ft. | 10 ft. | 12 ft. |
|--------------------|-------|-------|-------|-------|-------|-------|--------|--------|
| No. sheets per sq. | 11.54 | 9.24 | 7.70 | 6.60 | 5.77 | 5.13 | 4.62 | 3.846 |

Corrugated 1¼ inch

| LENGTH.. | 4 ft. | 5 ft. | 6 ft. | 7 ft. | 8 ft. | 9 ft. | 10 ft. | 12 ft. |
|--------------------|-------|-------|-------|-------|-------|-------|--------|--------|
| No. sheets per sq. | 12 | 9¾ | 8 | 6¾ | 6 | 5½ | 4¾ | 4 |

"V" Crimped and Pressed Standing-Seam Roofing

| LENGTH.. | 4 ft. | 5 ft. | 6 ft. | 7 ft. | 8 ft. | 9 ft. | 10 ft. | 12 ft. |
|--------------------|-------|-------|-------|-------|-------|-------|--------|--------|
| No. sheets per sq. | 12½ | 10 | 8½ | 7¼ | 6¼ | 5½ | 5 | 4.166 |

Table of Sheets per Square

To find the number of sheets in a given number of squares: Multiply the number of squares by the number set opposite the length of sheets desired in the column for the material wanted. The result is the number of sheets.

| Length of sheet | 2½ in. Corrugated 26 in. wide | 1¼ in. Corrugated 25 in. wide | ¾ in. Corrugated 24⅞ in. wide | V-Crimped Standing Seam, etc. 24 in. wide |
|-----------------|-------------------------------------|-------------------------------------|-------------------------------------|--|
| 5 feet..... | 9.231 | 9.505 | 9.600 | 10.000 |
| 6 feet..... | 7.692 | 7.921 | 8.000 | 8.333 |
| 7 feet..... | 6.593 | 6.789 | 6.857 | 7.143 |
| 8 feet..... | 5.769 | 5.941 | 6.000 | 6.250 |
| 9 feet..... | 5.128 | 5.381 | 5.333 | 5.556 |
| 10 feet..... | 4.615 | 4.752 | 4.800 | 5.000 |
| 12 feet..... | 3.846 | 3.961 | 4.000 | 4.167 |

| | | | | |
|------------|---------|----------|----------|----------|
| Odd feet | 46.1538 | 47.5247 | 48.0000 | 50.0000 |
| Odd inches | 553.846 | 570.2964 | 576.0000 | 600.0000 |

If for odd lengths divide the numbers above by the length and multiply as before stated. If length is in inches, use the number for "odd inches." If in feet, use "odd feet." For Steel Pressed Brick multiply number of squares by 8.6.

Number of Squares in 2½ Inch Corrugated Sheets

| SHEETS | 1 | 2 | 3 | 4 | 5 |
|-----------------|-------------------|-------------------|-------------------|-------------------|--------------------|
| 26 in. x 6 ft. | .13 | .26 | .39 | .52 | .65 |
| 26 in. x 7 ft. | .15½ ₆ | .30½ ₃ | .45½ ₂ | .60½ ₃ | .75 |
| 26 in. x 8 ft. | .17½ ₃ | .34½ ₃ | .52 | .69½ ₃ | .86½ ₃ |
| 26 in. x 9 ft. | .19½ ₂ | .39 | .58½ ₂ | .78 | .97½ ₂ |
| 26 in. x 10 ft. | .21½ ₃ | .43½ ₃ | .65 | .86½ ₂ | 1.08½ ₃ |

| SHEETS | 6 | 7 | 8 | 9 | 10 |
|-----------------|------|--------------------|--------------------|--------------------|--------------------|
| 26 in. x 6 ft. | .78 | .91 | 1.04 | 1.17 | 1.30 |
| 26 in. x 7 ft. | .91 | 1.06½ ₂ | 1.21½ ₃ | 1.36½ ₂ | 1.51½ ₃ |
| 26 in. x 8 ft. | 1.04 | 1.21½ ₃ | 1.38½ ₃ | 1.56 | 1.73½ ₃ |
| 26 in. x 9 ft. | 1.17 | 1.36½ ₂ | 1.56 | 1.75½ ₂ | 1.95 |
| 26 in. x 10 ft. | 1.30 | 1.51½ ₃ | 1.73½ ₃ | 1.95 | 2.16½ ₃ |

| SHEETS | 20 | 30 | 40 | 50 | 60 |
|-----------------|--------------------|------|--------------------|--------------------|-------|
| 26 in. x 6 ft. | 2.60 | 3.90 | 5.20 | 6.50 | 7.80 |
| 26 in. x 7 ft. | 3.03½ ₃ | 4.55 | 6.06½ ₃ | 7.58½ ₃ | 9.10 |
| 26 in. x 8 ft. | 3.46½ ₃ | 5.20 | 6.93½ ₃ | 8.66½ ₃ | 10.40 |
| 26 in. x 9 ft. | 3.90 | 5.85 | 7.80 | 9.75 | 11.70 |
| 26 in. x 10 ft. | 4.33½ ₃ | 6.50 | 8.66½ ₃ | 10.83 | 13.00 |

| SHEETS | 70 | 80 | 90 | 100 |
|-----------------|---------------------|---------------------|-------|---------------------|
| 26 in. x 6 ft. | 9.10 | 10.40 | 11.70 | 13.00 |
| 26 in. x 7 ft. | 10.61½ ₃ | 12.13½ ₃ | 13.65 | 15.16½ ₃ |
| 26 in. x 8 ft. | 12.13½ ₃ | 13.86½ ₃ | 15.60 | 17.33½ ₃ |
| 26 in. x 9 ft. | 13.65 | 15.60 | 17.55 | 19.50 |
| 26 in. x 10 ft. | 15.16½ ₃ | 17.33½ ₃ | 19.50 | 21.66½ ₃ |

Weights of Black and Galvanized Sheet Steel U. S. Standard Gauges

| GALVANIZED | | Number of gauge | BLACK | | |
|----------------------------------|-----------------------------------|-----------------|----------------------------------|----------------------|--------------------------|
| Weight per square foot in POUNDS | Weights per square foot in OUNCES | | Weight per square foot in POUNDS | Fractions of an inch | Decimal parts of an inch |
| ..... | ..... | 0000000 | 20.4 | $\frac{1}{2}$ | .5 |
| ..... | ..... | 000000 | 19.125 | $\frac{15}{32}$ | .46875 |
| ..... | ..... | 00000 | 17.85 | $\frac{7}{16}$ | .4375 |
| ..... | ..... | 0000 | 16.575 | $\frac{13}{32}$ | .40625 |
| ..... | ..... | 000 | 15.30 | $\frac{3}{8}$ | .375 |
| ..... | ..... | 00 | 14.025 | $\frac{11}{32}$ | .34375 |
| ..... | ..... | 0 | 12.75 | $\frac{5}{16}$ | .3125 |
| ..... | ..... | 1 | 11.475 | $\frac{9}{32}$ | .28125 |
| ..... | ..... | 2 | 10.84 | $\frac{17}{32}$ | .265625 |
| ..... | ..... | 3 | 10.2 | $\frac{1}{4}$ | .25 |
| ..... | ..... | 4 | 9.56 | $\frac{15}{64}$ | .234375 |
| ..... | ..... | 5 | 8.925 | $\frac{7}{32}$ | .21875 |
| ..... | ..... | 6 | 8.29 | $\frac{13}{64}$ | .203125 |
| ..... | ..... | 7 | 7.65 | $\frac{3}{16}$ | .1875 |
| ..... | ..... | 8 | 7.01 | $\frac{11}{64}$ | .171875 |
| ..... | ..... | 9 | 6.375 | $\frac{5}{32}$ | .15625 |
| 5.781 | $92\frac{1}{2}$ | 10 | 5.737 | $\frac{9}{64}$ | .140625 |
| 5.156 | $82\frac{1}{2}$ | 11 | 5.1 | $\frac{1}{8}$ | .125 |
| 4.531 | $72\frac{1}{2}$ | 12 | 4.46 | $\frac{7}{64}$ | .109375 |
| 3.906 | $62\frac{1}{2}$ | 13 | 3.82 | $\frac{3}{32}$ | .09375 |
| 3.281 | $52\frac{1}{2}$ | 14 | 3.19 | $\frac{5}{64}$ | .078125 |
| 2.969 | $47\frac{1}{2}$ | 15 | 2.87 | $\frac{9}{128}$ | .0703125 |
| 2.656 | $42\frac{1}{2}$ | 16 | 2.55 | $\frac{1}{16}$ | .0625 |
| 2.406 | $38\frac{1}{2}$ | 17 | 2.3 | $\frac{9}{100}$ | .05625 |
| 2.156 | $34\frac{1}{2}$ | 18 | 2.04 | $\frac{1}{20}$ | .05 |
| 1.906 | $30\frac{1}{2}$ | 19 | 1.78 | $\frac{7}{100}$ | .04375 |
| 1.656 | $26\frac{1}{2}$ | 20 | 1.53 | $\frac{3}{80}$ | .0375 |
| 1.531 | $24\frac{1}{2}$ | 21 | 1.40 | $\frac{11}{320}$ | .034375 |
| 1.406 | $22\frac{1}{2}$ | 22 | 1.275 | $\frac{1}{32}$ | .03125 |
| 1.281 | $20\frac{1}{2}$ | 23 | 1.148 | $\frac{9}{320}$ | .028125 |
| 1.156 | $18\frac{1}{2}$ | 24 | 1.02 | $\frac{1}{40}$ | .025 |
| 1.031 | $16\frac{1}{2}$ | 25 | .8925 | $\frac{7}{320}$ | .021875 |
| .9062 | $14\frac{1}{2}$ | 26 | .765 | $\frac{3}{100}$ | .01875 |
| .8437 | $13\frac{1}{2}$ | 27 | .70 | $\frac{11}{640}$ | .0171875 |
| .7812 | $12\frac{1}{2}$ | 28 | .637 | $\frac{1}{64}$ | .015625 |
| .7187 | $11\frac{1}{2}$ | 29 | .574 | $\frac{9}{640}$ | .0140625 |
| .6562 | $10\frac{1}{2}$ | 30 | .51 | $\frac{1}{80}$ | .0125 |

Estimated Weights of Black Sheet Steel

U. S. Standard Gauge Weight per Sheet in Pounds

Tables of this kind heretofore published have given weight of Iron Sheet.
Our weights cover Sheet Steel.

| U.S.Gauge | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 | 26 | 27 | 28 | 29 | 30 |
|-----------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------|------------------|----------------|-----------------|----------------|
| Thickness (Inches) | $\frac{9}{64}$ | $\frac{7}{64}$ | $\frac{5}{64}$ | $\frac{1}{16}$ | $\frac{1}{20}$ | $\frac{3}{80}$ | $\frac{1}{32}$ | $\frac{1}{40}$ | $\frac{3}{160}$ | $\frac{11}{640}$ | $\frac{1}{64}$ | $\frac{9}{640}$ | $\frac{1}{80}$ |
| Lbs. per sq. ft. | 5.738 | 4.462 | 3.187 | 2.55 | 2.04 | 1.53 | 1.275 | 1.02 | .765 | .7012 | .6375 | .5737 | .51 |
| 20x84 | 66.95 | 52.06 | 37.18 | 29.75 | 23.80 | 17.85 | 14.87 | 11.90 | 8.92 | 8.18 | 7.44 | 6.69 | 5.95 |
| x96 | 76.51 | 59.50 | 42.49 | 34.00 | 27.20 | 20.40 | 17.00 | 13.60 | 10.20 | 9.35 | 8.51 | 7.65 | 6.80 |
| x101 | 80.49 | 62.59 | 44.71 | 35.77 | 28.62 | 21.46 | 17.90 | 14.31 | 10.73 | 9.84 | 8.95 | 8.05 | 7.15 |
| x108 | 86.07 | 66.93 | 47.81 | 38.25 | 30.60 | 22.95 | 19.14 | 15.30 | 11.47 | 10.52 | 9.57 | 8.61 | 7.65 |
| x120 | 95.62 | 74.37 | 53.12 | 42.50 | 34.00 | 25.50 | 21.25 | 17.00 | 12.75 | 11.69 | 10.62 | 9.56 | 8.50 |
| x144 | 114.76 | 89.24 | 63.74 | 51.00 | 40.80 | 30.60 | 25.50 | 20.40 | 15.30 | 14.02 | 12.76 | 11.47 | 10.20 |
| 24x84 | 80.33 | 62.47 | 44.62 | 35.70 | 28.56 | 21.42 | 17.85 | 14.28 | 10.71 | 9.82 | 8.93 | 8.03 | 7.14 |
| x96 | 91.81 | 71.40 | 51.00 | 40.80 | 32.64 | 24.48 | 20.40 | 16.32 | 12.24 | 11.22 | 10.20 | 9.18 | 8.16 |
| x101 | 96.59 | 75.12 | 53.65 | 42.92 | 34.35 | 25.75 | 21.46 | 17.17 | 12.88 | 11.80 | 10.73 | 9.66 | 8.59 |
| x108 | 103.28 | 80.32 | 57.37 | 45.90 | 36.72 | 27.54 | 22.94 | 18.36 | 13.77 | 12.63 | 11.47 | 10.33 | 9.18 |
| x120 | 115.03 | 89.25 | 63.75 | 51.00 | 40.80 | 30.60 | 25.50 | 20.40 | 15.30 | 14.02 | 12.75 | 11.47 | 10.20 |
| x144 | 137.72 | 107.10 | 76.50 | 61.20 | 48.96 | 36.72 | 30.60 | 24.48 | 18.36 | 16.83 | 15.30 | 13.77 | 12.24 |
| 26x84 | 87.03 | 67.67 | 48.34 | 38.68 | 30.94 | 23.20 | 19.34 | 15.46 | 11.60 | 10.63 | 9.66 | 8.70 | 7.73 |
| x96 | 99.46 | 77.35 | 55.25 | 44.20 | 35.36 | 26.52 | 22.10 | 17.68 | 13.26 | 12.15 | 11.04 | 9.94 | 8.84 |
| x101 | 104.65 | 81.37 | 58.14 | 46.50 | 37.20 | 28.90 | 23.25 | 18.60 | 13.95 | 12.79 | 11.63 | 10.46 | 9.30 |
| x108 | 111.88 | 87.02 | 62.16 | 49.72 | 39.78 | 29.83 | 24.85 | 19.89 | 14.92 | 13.68 | 12.43 | 11.18 | 9.94 |
| x120 | 124.31 | 96.68 | 69.06 | 55.25 | 44.20 | 33.14 | 27.62 | 22.10 | 16.57 | 15.19 | 13.81 | 12.43 | 11.04 |
| x144 | 149.17 | 116.02 | 82.87 | 66.30 | 53.04 | 39.78 | 33.14 | 26.52 | 19.88 | 18.23 | 16.57 | 14.92 | 13.26 |
| 28x84 | 93.72 | 72.88 | 52.05 | 41.65 | 33.32 | 24.99 | 20.83 | 16.66 | 12.50 | 11.45 | 10.41 | 9.37 | 8.33 |
| x96 | 107.10 | 83.30 | 59.50 | 47.60 | 38.08 | 28.56 | 23.80 | 19.04 | 14.28 | 13.08 | 11.90 | 10.71 | 9.51 |
| x101 | 112.68 | 87.64 | 62.60 | 50.07 | 40.04 | 30.05 | 25.04 | 20.03 | 15.02 | 13.77 | 12.52 | 11.27 | 10.01 |
| x108 | 120.50 | 93.72 | 66.94 | 53.54 | 42.84 | 32.12 | 26.77 | 21.42 | 16.06 | 14.73 | 13.40 | 12.04 | 10.71 |
| x120 | 133.87 | 104.12 | 74.38 | 59.50 | 47.60 | 35.70 | 29.75 | 23.80 | 17.85 | 16.36 | 14.87 | 13.38 | 11.90 |
| x144 | 160.66 | 124.94 | 89.24 | 71.40 | 57.12 | 42.84 | 35.70 | 28.56 | 21.42 | 19.63 | 17.85 | 16.06 | 14.28 |
| 30x84 | 100.42 | 78.08 | 55.77 | 44.62 | 35.70 | 26.78 | 22.31 | 17.85 | 13.39 | 12.27 | 11.16 | 10.04 | 8.92 |
| x96 | 114.75 | 89.25 | 63.75 | 51.00 | 40.80 | 30.60 | 25.50 | 20.40 | 15.30 | 14.02 | 12.75 | 11.47 | 10.20 |
| x101 | 120.73 | 93.90 | 67.07 | 53.65 | 42.92 | 32.20 | 26.82 | 21.46 | 16.09 | 14.76 | 13.41 | 12.07 | 10.73 |
| x108 | 129.10 | 100.41 | 71.73 | 57.37 | 45.90 | 34.42 | 28.68 | 22.95 | 17.21 | 15.78 | 14.34 | 12.91 | 11.48 |
| x120 | 143.44 | 111.57 | 79.69 | 63.75 | 51.00 | 38.25 | 31.87 | 25.50 | 19.12 | 17.53 | 15.94 | 14.34 | 12.75 |
| x144 | 172.12 | 133.87 | 95.62 | 76.50 | 61.20 | 45.90 | 38.25 | 30.60 | 22.95 | 21.04 | 19.12 | 17.21 | 15.30 |
| 36x84 | 120.50 | 93.70 | 66.93 | 53.55 | 42.84 | 32.13 | 26.78 | 21.42 | 16.07 | 14.73 | 13.39 | 12.05 | 10.71 |
| x96 | 137.70 | 107.10 | 76.50 | 61.20 | 48.96 | 36.72 | 30.60 | 24.48 | 18.36 | 16.83 | 15.30 | 13.77 | 12.24 |
| x108 | 154.92 | 120.50 | 86.07 | 68.85 | 55.08 | 41.30 | 34.42 | 27.54 | 20.65 | 18.93 | 17.21 | 15.49 | 13.77 |
| x120 | 172.12 | 133.87 | 95.62 | 76.50 | 61.20 | 45.90 | 38.25 | 30.60 | 22.95 | 21.04 | 19.12 | 17.21 | 15.30 |
| x144 | 206.55 | 160.65 | 114.75 | 91.80 | 73.44 | 55.08 | 45.90 | 36.72 | 27.54 | 25.20 | 22.95 | 20.65 | 18.36 |
| 42x84 | 104.57 | 109.34 | 78.10 | 62.48 | 49.98 | 37.47 | 31.24 | 24.99 | 18.73 | 17.14 | 15.62 | 14.02 | 12.49 |
| x96 | 164.65 | 124.95 | 89.25 | 71.40 | 57.12 | 42.84 | 35.70 | 28.56 | 21.42 | 19.63 | 17.85 | 16.06 | 14.28 |
| x108 | 180.73 | 140.56 | 100.40 | 80.32 | 64.26 | 48.19 | 40.16 | 32.13 | 24.10 | 22.09 | 20.08 | 18.07 | 16.07 |
| x120 | 200.81 | 156.19 | 111.57 | 89.25 | 71.40 | 53.56 | 44.62 | 35.70 | 26.77 | 24.54 | 22.31 | 20.08 | 17.85 |
| x144 | 240.97 | 187.42 | 133.87 | 107.10 | 85.68 | 64.26 | 53.55 | 42.84 | 32.13 | 29.46 | 26.76 | 24.10 | 21.42 |
| 48x84 | 160.86 | 124.93 | 89.24 | 71.40 | 57.12 | 42.84 | 35.70 | 28.56 | 21.42 | 19.63 | 17.85 | 16.06 | 14.28 |
| x96 | 183.80 | 142.80 | 102.00 | 81.60 | 65.28 | 48.96 | 40.80 | 32.64 | 24.48 | 22.44 | 20.40 | 18.36 | 16.32 |
| x108 | 206.55 | 160.65 | 114.75 | 91.80 | 73.44 | 55.08 | 45.90 | 36.72 | 27.54 | 25.24 | 22.95 | 20.65 | 18.36 |
| x120 | 229.50 | 178.50 | 127.50 | 102.00 | 81.60 | 61.20 | 51.00 | 40.80 | 30.60 | 28.05 | 25.50 | 24.10 | 21.42 |
| x144 | 275.40 | 214.20 | 153.00 | 122.40 | 97.92 | 73.44 | 61.20 | 48.96 | 36.72 | 33.66 | 30.60 | 27.54 | 24.48 |

NOTE: These figures are given for convenience in estimating only, and may vary somewhat in actual practice.

Weights of Galvanized Sheets, per Sheet and per Bundle

| GAUGES | 10 | | | 11 | | | 12 | | | 13 | | | 14 | | | Square feet per sheet |
|--------|------------------|-------------------|------------------|------------------|-------------------|------------------|------------------|-------------------|------------------|------------------|-------------------|------------------|------------------|-------------------|------------------|-----------------------|
| | Weight per sheet | Weight per bundle | Number of sheets | Weight per sheet | Weight per bundle | Number of sheets | Weight per sheet | Weight per bundle | Number of sheets | Weight per sheet | Weight per bundle | Number of sheets | Weight per sheet | Weight per bundle | Number of sheets | |
| 24x 72 | 69.4 | 138 | 2 | 61.8 | 185 | 3 | 54.37 | 163 | 3 | 46.87 | 140 | 3 | 39.37 | 157 | 4 | 12. |
| 26x 72 | 75.1 | 150 | 2 | 67. | 134 | 2 | 58.9 | 176 | 3 | 50.78 | 152 | 3 | 42.65 | 170 | 4 | 13. |
| 28x 72 | 80.8 | 161 | 2 | 72.1 | 144 | 2 | 63.4 | 126 | 2 | 54.68 | 164 | 3 | 45.9 | 137 | 3 | 14. |
| 30x 72 | 86.8 | 173 | 2 | 77.3 | 154 | 2 | 67.9 | 135 | 2 | 58.59 | 175 | 3 | 49.2 | 147 | 3 | 15. |
| 36x 72 | 104.1 | 208 | 2 | 92. | 184 | 2 | 81.56 | 163 | 2 | 70.3 | 140 | 2 | 59. | 179 | 3 | 18. |
| 24x 84 | 80.9 | 161 | 2 | 72. | 144 | 2 | 63.4 | 126 | 2 | 54.68 | 164 | 3 | 45.9 | 137 | 3 | 14. |
| 26x 84 | 87.6 | 175 | 2 | 78.1 | 156 | 2 | 68.69 | 137 | 2 | 59.2 | 177 | 3 | 49.74 | 149 | 3 | 15.16 |
| 28x 84 | 94.2 | 188 | 2 | 84.2 | 168 | 2 | 73.99 | 148 | 2 | 63.78 | 191 | 3 | 53.58 | 160 | 3 | 16.33 |
| 30x 84 | 101. | 202 | 2 | 90.2 | 180 | 2 | 79.29 | 158 | 2 | 68.3 | 136 | 2 | 57.4 | 172 | 3 | 17.5 |
| 36x 84 | 121.4 | 221 | 1 | 108.3 | 216 | 2 | 95.1 | 190 | 2 | 82. | 164 | 2 | 68.9 | 137 | 2 | 21. |
| 24x 96 | 92.5 | 185 | 2 | 82.5 | 165 | 2 | 72.5 | 145 | 2 | 62.5 | 125 | 2 | 52.5 | 157 | 3 | 16. |
| 26x 96 | 100.1 | 200 | 2 | 89.4 | 178 | 2 | 78.5 | 157 | 2 | 67.69 | 135 | 2 | 56.8 | 170 | 3 | 17.33 |
| 28x 96 | 107.88 | 215 | 2 | 96.2 | 192 | 2 | 84.55 | 169 | 2 | 72.89 | 145 | 2 | 61.2 | 183 | 3 | 18.66 |
| 30x 96 | 115.6 | 231 | 2 | 103.1 | 206 | 2 | 90.6 | 181 | 2 | 78.2 | 156 | 2 | 65.6 | 131 | 2 | 20. |
| 36x 96 | 138.1 | 238 | 1 | 123.7 | 223 | 1 | 108.7 | 198 | 1 | 93.75 | 187 | 2 | 78.75 | 157 | 2 | 24. |
| 24x120 | 115.62 | 115 | 1 | 103.12 | 206 | 2 | 90.62 | 181 | 2 | 78.12 | 156 | 2 | 65.62 | 131 | 2 | 20. |
| 26x120 | 125.25 | 125 | 1 | 111.72 | 111 | 1 | 98.17 | 196 | 2 | 84.63 | 169 | 2 | 71.09 | 142 | 2 | 21.66 |
| 28x120 | 134.88 | 134 | 1 | 120.31 | 120 | 1 | 105.72 | 211 | 2 | 91.14 | 182 | 2 | 76.56 | 153 | 2 | 23.33 |
| 30x120 | 144.53 | 144 | 1 | 128.9 | 128 | 1 | 113.27 | 113 | 1 | 97.65 | 195 | 2 | 82. | 164 | 2 | 25. |
| 36x120 | 173.44 | 173 | 1 | 154.68 | 154 | 1 | 135.93 | 135 | 1 | 117.18 | 117 | 1 | 98.43 | 196 | 2 | 30. |

No allowance for bands

Weights of Galvanized Sheets, per Sheet and per Bundle

| GAUGES | SIZES | 15 | | | 16 | | | 17 | | | 18 | | | 19 | | | Square feet per sheet |
|--------|-------|------------------|-------------------|------------------|------------------|-------------------|------------------|------------------|-------------------|------------------|------------------|-------------------|------------------|------------------|-------------------|------------------|-----------------------|
| | | Weight per sheet | Weight per bundle | Number of sheets | Weight per sheet | Weight per bundle | Number of sheets | Weight per sheet | Weight per bundle | Number of sheets | Weight per sheet | Weight per bundle | Number of sheets | Weight per sheet | Weight per bundle | Number of sheets | |
| 24x 72 | 35.6 | 142 | 4 | 31.87 | 159 | 5 | 28.87 | 144 | 5 | 25.87 | 155 | 6 | 22.87 | 160 | 7 | 12. | |
| 26x 72 | 38.59 | 154 | 4 | 34.5 | 138 | 4 | 31.28 | 156 | 5 | 28. | 140 | 5 | 24.75 | 148 | 6 | 13. | |
| 28x 72 | 41.5 | 166 | 4 | 37.18 | 148 | 4 | 33.68 | 168 | 5 | 30.18 | 150 | 5 | 26.68 | 160 | 6 | 14. | |
| 30x 72 | 44.5 | 133 | 3 | 39.84 | 159 | 4 | 36. | 144 | 4 | 32.34 | 161 | 5 | 28.59 | 142 | 5 | 15. | |
| 36x 72 | 53.4 | 160 | 3 | 47.8 | 143 | 3 | 43.3 | 173 | 4 | 38.8 | 155 | 4 | 34.3 | 137 | 4 | 18. | |
| 24x 84 | 41.5 | 166 | 4 | 37.18 | 148 | 4 | 33.68 | 168 | 5 | 30.18 | 150 | 5 | 26.68 | 160 | 6 | 14. | |
| 26x 84 | 45. | 135 | 3 | 40.2 | 160 | 4 | 36.4 | 145 | 4 | 32.68 | 163 | 5 | 28.89 | 144 | 5 | 15.16 | |
| 28x 84 | 48.47 | 145 | 3 | 43.37 | 173 | 4 | 39.25 | 157 | 4 | 35.2 | 140 | 4 | 31.12 | 155 | 5 | 16.33 | |
| 30x 84 | 51.95 | 155 | 3 | 46.48 | 139 | 3 | 42.1 | 168 | 4 | 37.7 | 150 | 4 | 33.35 | 166 | 5 | 17.5 | |
| 36x 84 | 62.34 | 124 | 2 | 55.78 | 167 | 3 | 50.5 | 151 | 3 | 45.28 | 135 | 3 | 40. | 160 | 4 | 21. | |
| 24x 96 | 47.5 | 142 | 3 | 42.5 | 170 | 4 | 38.5 | 154 | 4 | 34.5 | 138 | 4 | 30.5 | 152 | 5 | 16. | |
| 26x 96 | 51.44 | 154 | 3 | 46. | 138 | 3 | 41.7 | 166 | 4 | 37.36 | 149 | 4 | 33. | 165 | 5 | 17.33 | |
| 28x 96 | 55.39 | 166 | 3 | 49.56 | 148 | 3 | 44.9 | 179 | 4 | 40.23 | 160 | 4 | 35.57 | 142 | 4 | 18.66 | |
| 30x 96 | 59.37 | 178 | 3 | 53.2 | 159 | 3 | 48.1 | 144 | 3 | 43.12 | 172 | 4 | 38.12 | 152 | 4 | 20. | |
| 36x 96 | 71.5 | 143 | 2 | 63.75 | 127 | 2 | 57.75 | 173 | 3 | 51.75 | 155 | 3 | 45.75 | 137 | 3 | 24. | |
| 24x120 | 59.37 | 178 | 3 | 53.12 | 159 | 3 | 48.12 | 144 | 3 | 43.12 | 129 | 3 | 38.12 | 152 | 4 | 20. | |
| 26x120 | 64.32 | 138 | 2 | 57.55 | 172 | 3 | 52.13 | 156 | 3 | 46.72 | 140 | 3 | 41.30 | 165 | 4 | 21.66 | |
| 28x120 | 69.27 | 138 | 2 | 61.98 | 186 | 3 | 56.14 | 168 | 3 | 50.31 | 150 | 3 | 44.48 | 133 | 3 | 23.33 | |
| 30x120 | 74.22 | 148 | 2 | 66.40 | 132 | 2 | 60.15 | 180 | 3 | 53.90 | 161 | 3 | 47.65 | 142 | 3 | 25. | |
| 36x120 | 89.06 | 178 | 2 | 79.69 | 159 | 2 | 72.19 | 144 | 2 | 64.69 | 129 | 2 | 57.19 | 171 | 3 | 30. | |

No allowance for bands

Weights of Galvanized Sheets, per Sheet and per Bundle

| GAUGES | 20 | | | | 21 | | | | 22 | | | | 23 | | | | 24 | | | | Square feet per sheet |
|--------|------------------|-------------------|------------------|------------------|-------------------|------------------|------------------|-------------------|------------------|------------------|-------------------|------------------|------------------|-------------------|------------------|------------------|-------------------|------------------|--|--|-----------------------|
| | Weight per sheet | Weight per bundle | Number of sheets | Weight per sheet | Weight per bundle | Number of sheets | Weight per sheet | Weight per bundle | Number of sheets | Weight per sheet | Weight per bundle | Number of sheets | Weight per sheet | Weight per bundle | Number of sheets | Weight per sheet | Weight per bundle | Number of sheets | | | |
| 24x 72 | 19.87 | 158 | 8 | 18.37 | 146 | 8 | 16.87 | 151 | 9 | 15.37 | 153 | 10 | 13.87 | 152 | 11 | 12. | | | | | |
| 26x 72 | 21.53 | 150 | 7 | 19.9 | 159 | 8 | 18.28 | 146 | 8 | 16.65 | 149 | 9 | 15.03 | 150 | 10 | 13. | | | | | |
| 28x 72 | 23.18 | 162 | 7 | 21.43 | 150 | 7 | 19.68 | 157 | 8 | 17.93 | 143 | 8 | 16.18 | 145 | 9 | 14. | | | | | |
| 30x 72 | 24.84 | 149 | 6 | 22.96 | 160 | 7 | 21. | 147 | 7 | 19.2 | 153 | 8 | 17.34 | 156 | 9 | 15. | | | | | |
| 36x 72 | 29.8 | 149 | 5 | 27.56 | 165 | 6 | 25.3 | 151 | 6 | 23. | 161 | 7 | 20.8 | 145 | 7 | 18. | | | | | |
| 24x 84 | 23.18 | 162 | 7 | 21.43 | 150 | 7 | 19.68 | 157 | 8 | 17.93 | 143 | 8 | 16.18 | 145 | 9 | 14. | | | | | |
| 26x 84 | 25.1 | 150 | 6 | 23.2 | 162 | 7 | 21.3 | 149 | 7 | 19.42 | 155 | 8 | 17.52 | 140 | 8 | 15.16 | | | | | |
| 28x 84 | 27. | 135 | 5 | 25. | 150 | 6 | 22.96 | 160 | 7 | 20.92 | 146 | 7 | 18.88 | 151 | 8 | 16.33 | | | | | |
| 30x 84 | 28.77 | 144 | 5 | 26.79 | 160 | 6 | 24.6 | 148 | 6 | 22.42 | 156 | 7 | 20.23 | 141 | 7 | 17.5 | | | | | |
| 36x 84 | 34.78 | 139 | 4 | 32.15 | 160 | 5 | 29.53 | 147 | 5 | 26.9 | 161 | 6 | 24.28 | 145 | 6 | 21. | | | | | |
| 24x 96 | 26.5 | 159 | 6 | 24.5 | 147 | 6 | 22.5 | 157 | 7 | 20.5 | 143 | 7 | 18.5 | 148 | 8 | 16. | | | | | |
| 26x 96 | 28.7 | 143 | 5 | 26.53 | 159 | 6 | 24.37 | 146 | 6 | 22.2 | 155 | 7 | 20. | 160 | 8 | 17.33 | | | | | |
| 28x 96 | 30.9 | 154 | 5 | 28.57 | 142 | 5 | 26.24 | 157 | 6 | 23.9 | 143 | 6 | 21.57 | 150 | 7 | 18.66 | | | | | |
| 30x 96 | 33.12 | 165 | 5 | 30.6 | 153 | 5 | 28.12 | 140 | 5 | 25.62 | 153 | 6 | 23.12 | 161 | 7 | 20. | | | | | |
| 36x 96 | 39.75 | 159 | 4 | 36.75 | 157 | 4 | 33.75 | 168 | 5 | 30.75 | 153 | 5 | 27.75 | 166 | 6 | 24. | | | | | |
| 24x120 | 33.12 | 165 | 5 | 30.62 | 153 | 5 | 28.12 | 142 | 5 | 25.62 | 153 | 6 | 23.12 | 161 | 7 | 20. | | | | | |
| 26x120 | 35.88 | 143 | 4 | 33.17 | 165 | 5 | 30.47 | 150 | 5 | 27.76 | 166 | 6 | 25.05 | 150 | 6 | 21.66 | | | | | |
| 28x120 | 38.64 | 154 | 4 | 35.73 | 142 | 4 | 32.81 | 164 | 5 | 29.89 | 149 | 5 | 26.98 | 161 | 6 | 23.33 | | | | | |
| 30x120 | 41.40 | 165 | 4 | 38.28 | 153 | 4 | 35.15 | 140 | 4 | 32.03 | 160 | 5 | 28.90 | 144 | 5 | 25. | | | | | |
| 36x120 | 49.68 | 149 | 3 | 45.93 | 137 | 3 | 42.18 | 168 | 4 | 38.43 | 153 | 4 | 34.68 | 173 | 5 | 30. | | | | | |

No allowance for bands

Weights of Galvanized Sheets, per Sheet and per Bundle

| GAUGES | 25 | | | | 26 | | | | 27 | | | | 28 | | | | 30 | | | | Square feet per sheet |
|--------|------------------|-------------------|------------------|------------------|-------------------|------------------|------------------|-------------------|------------------|------------------|-------------------|------------------|------------------|-------------------|------------------|------------------|-------------------|------------------|--|--|-----------------------|
| | Weight per sheet | Weight per bundle | Number of sheets | Weight per sheet | Weight per bundle | Number of sheets | Weight per sheet | Weight per bundle | Number of sheets | Weight per sheet | Weight per bundle | Number of sheets | Weight per sheet | Weight per bundle | Number of sheets | Weight per sheet | Weight per bundle | Number of sheets | | | |
| 24x 72 | 12.37 | 148 | 12 | 10.87 | 152 | 14 | 10.12 | 151 | 15 | 9.37 | 149 | 16 | 7.87 | 150 | 19 | 12. | | | | | |
| 26x 72 | 13.4 | 147 | 11 | 11.78 | 153 | 13 | 10.96 | 153 | 14 | 10.15 | 152 | 15 | 8.53 | 145 | 17 | 13. | | | | | |
| 28x 72 | 14.43 | 158 | 11 | 12.68 | 152 | 12 | 11.81 | 153 | 13 | 10.93 | 153 | 14 | 9.18 | 146 | 16 | 14. | | | | | |
| 30x 72 | 15.46 | 154 | 10 | 13.59 | 149 | 11 | 12.65 | 151 | 12 | 11.71 | 152 | 13 | 9.84 | 147 | 15 | 15. | | | | | |
| 36x 72 | 18.56 | 148 | 8 | 16.3 | 146 | 9 | 15.18 | 151 | 10 | 14. | 154 | 11 | 11.81 | 153 | 13 | 18. | | | | | |
| 24x 84 | 14.43 | 158 | 11 | 12.68 | 152 | 12 | 11.81 | 153 | 13 | 10.93 | 153 | 14 | 9.18 | 146 | 16 | 14. | | | | | |
| 26x 84 | 15.63 | 156 | 10 | 13.73 | 151 | 11 | 12.78 | 153 | 12 | 11.84 | 153 | 13 | 9.93 | 148 | 15 | 15.16 | | | | | |
| 28x 84 | 16.84 | 151 | 9 | 14.79 | 147 | 10 | 13.77 | 151 | 11 | 12.75 | 153 | 12 | 10.71 | 149 | 14 | 16.33 | | | | | |
| 30x 84 | 18. | 144 | 8 | 15.85 | 158 | 10 | 14.76 | 147 | 10 | 13.67 | 150 | 11 | 11.48 | 149 | 13 | 17.5 | | | | | |
| 36x 84 | 21.65 | 151 | 7 | 19.30 | 154 | 8 | 17.7 | 159 | 9 | 16.4 | 147 | 9 | 13.78 | 151 | 11 | 21. | | | | | |
| 24x 96 | 16.5 | 148 | 9 | 14.5 | 145 | 10 | 13.5 | 148 | 11 | 12.5 | 150 | 12 | 10.5 | 157 | 15 | 16. | | | | | |
| 26x 96 | 17.87 | 142 | 8 | 15.7 | 157 | 10 | 14.62 | 146 | 10 | 13.53 | 148 | 11 | 11.37 | 158 | 14 | 17.33 | | | | | |
| 28x 96 | 19.24 | 153 | 8 | 16.9 | 152 | 9 | 15.74 | 157 | 10 | 14.57 | 145 | 10 | 12.24 | 146 | 12 | 18.66 | | | | | |
| 30x 96 | 20.62 | 144 | 7 | 18.12 | 144 | 8 | 16.87 | 151 | 9 | 15.62 | 156 | 10 | 13.12 | 144 | 11 | 20. | | | | | |
| 36x 96 | 24.75 | 148 | 6 | 21.75 | 152 | 7 | 20.25 | 162 | 8 | 18.75 | 150 | 8 | 15.75 | 157 | 10 | 24. | | | | | |
| 24x120 | 20.62 | 144 | 7 | 18.12 | 145 | 8 | 16.87 | 151 | 9 | 15.62 | 156 | 10 | 13.12 | 157 | 12 | 20. | | | | | |
| 26x120 | 22.34 | 156 | 7 | 19.63 | 157 | 8 | 18.28 | 146 | 8 | 16.92 | 152 | 9 | 14.21 | 156 | 11 | 21.66 | | | | | |
| 28x120 | 24.06 | 144 | 6 | 21.14 | 148 | 7 | 19.68 | 157 | 8 | 18.22 | 145 | 8 | 15.31 | 153 | 10 | 23.33 | | | | | |
| 30x120 | 25.78 | 154 | 6 | 22.65 | 158 | 7 | 21.09 | 147 | 7 | 19.53 | 156 | 8 | 16.4 | 147 | 9 | 25. | | | | | |
| 36x120 | 30.93 | 154 | 5 | 27.18 | 163 | 6 | 25.31 | 151 | 6 | 23.43 | 164 | 7 | 19.68 | 157 | 8 | 30. | | | | | |

No allowance for bands

Standard Gauges

| U. S. STANDARD GAUGE | | | | | BIRMINGHAM GAUGE | | | |
|----------------------|------------------|-----------|--------------------|----------|------------------|----------------------|--------------|-------|
| No. of Gauge | Thickness in in. | | Weight square foot | | No. of Gauge | Thick-ness in inches | Weight sq.ft | |
| | Fract's | Decimals | Iron | Steel | | | Iron | steel |
| 7-0's | 1/2 | .5 | 20.00 | 20.4 | ..... | ..... | ..... | ..... |
| 6-0's | 15/32 | .46875 | 18.75 | 19.125 | ..... | ..... | ..... | ..... |
| 5-0's | 7/16 | .4375 | 17.50 | 17.85 | ..... | ..... | ..... | ..... |
| 0000 | 13/32 | .40625 | 16.25 | 16.575 | 0000 | .454 | 18.22 | 18.46 |
| 000 | 3/8 | .375 | 15. | 15.30 | 000 | .425 | 17.05 | 17.28 |
| 00 | 11/32 | .34375 | 13.75 | 14.025 | 00 | .38 | 15.25 | 15.45 |
| 0 | 5/16 | .3125 | 12.50 | 12.75 | 0 | .34 | 13.64 | 13.82 |
| 1 | 9/32 | .28125 | 11.25 | 11.475 | 1 | .3 | 12.04 | 12.20 |
| 2 | 17/64 | .265625 | 10.625 | 10.8375 | 2 | .284 | 11.40 | 11.55 |
| 3 | 1/4 | .25 | 10. | 10.2 | 3 | .259 | 10.39 | 10.53 |
| 4 | 15/64 | .234375 | 9.375 | 9.5625 | 4 | .238 | 9.55 | 9.68 |
| 5 | 7/32 | .21875 | 8.75 | 8.925 | 5 | .22 | 8.83 | 8.95 |
| 6 | 13/64 | .203125 | 8.125 | 8.2875 | 6 | .203 | 8.15 | 8.25 |
| 7 | 3/16 | .1875 | 7.5 | 7.65 | 7 | .18 | 7.22 | 7.32 |
| 8 | 11/64 | .171875 | 6.875 | 7.0125 | 8 | .165 | 6.62 | 6.71 |
| 9 | 5/32 | .15625 | 6.25 | 6.375 | 9 | .148 | 5.94 | 6.02 |
| 10 | 9/64 | .140625 | 5.625 | 5.7375 | 10 | .134 | 5.38 | 5.45 |
| 11 | 1/8 | .125 | 5. | 5.1 | 11 | .12 | 4.82 | 4.88 |
| 12 | 7/64 | .109375 | 4.375 | 4.4625 | 12 | .109 | 4.37 | 4.43 |
| 13 | 3/32 | .09375 | 3.75 | 3.825 | 13 | .095 | 3.81 | 3.86 |
| 14 | 5/64 | .078125 | 3.125 | 3.1875 | 14 | .083 | 3.33 | 3.37 |
| 15 | 9/128 | .0703125 | 2.8125 | 2.86875 | 15 | .072 | 2.89 | 2.93 |
| 16 | 1/16 | .0625 | 2.5 | 2.55 | 16 | .065 | 2.61 | 2.64 |
| 17 | 9/160 | .05625 | 2.25 | 2.295 | 17 | .058 | 2.33 | 2.36 |
| 18 | 1/20 | .05 | 2. | 2.04 | 18 | .049 | 1.97 | 1.99 |
| 19 | 7/160 | .04375 | 1.75 | 1.785 | 19 | .042 | 1.69 | 1.71 |
| 20 | 3/80 | .0375 | 1.50 | 1.53 | 20 | .035 | 1.40 | 1.42 |
| 21 | 11/320 | .034375 | 1.375 | 1.4025 | 21 | .032 | 1.28 | 1.30 |
| 22 | 1/32 | .03125 | 1.25 | 1.275 | 22 | .028 | 1.12 | 1.14 |
| 23 | 9/320 | .028125 | 1.125 | 1.1475 | 23 | .025 | 1.00 | 1.02 |
| 24 | 1/40 | .025 | 1. | 1.02 | 24 | .022 | .883 | .895 |
| 25 | 7/320 | .021875 | .865 | .8925 | 25 | .02 | .803 | .813 |
| 26 | 3/160 | .01805 | .75 | .765 | 26 | .018 | .722 | .732 |
| 27 | 11/640 | .0171875 | .6875 | .70125 | 27 | .016 | .642 | .651 |
| 28 | 1/64 | .015625 | .625 | .6375 | 28 | .014 | .562 | .569 |
| 29 | 9/640 | .0140625 | .5625 | .57375 | 29 | .013 | ..... | ..... |
| 30 | 1/80 | .0125 | .5 | .51 | 30 | .012 | ..... | ..... |
| 31 | 7/640 | .010985 | .4375 | .44625 | 31 | .01 | ..... | ..... |
| 32 | 13/1280 | .01045625 | .40625 | .414375 | 32 | .009 | ..... | ..... |
| 33 | 3/320 | .009375 | .375 | .3825 | 33 | .008 | ..... | ..... |
| 34 | 11/1280 | .00859375 | .34375 | .350625 | 34 | .007 | ..... | ..... |
| 35 | 5/640 | .0078125 | .3125 | .31875 | 35 | .005 | ..... | ..... |
| 36 | 9/1280 | .00703125 | .28125 | .286875 | 36 | .004 | ..... | ..... |
| 37 | 17/2560 | .00664062 | .265625 | .2709375 | 37 | ..... | ..... | ..... |
| 38 | 1/160 | .00625 | .25 | .255 | ..... | ..... | ..... | ..... |

Sheet mills roll iron and steel sheets to U. S. standard gauge unless otherwise ordered. Plate mills usually roll heavy plates $\frac{3}{16}$ and heavier and light plates No. 8 to No. 12 to Birmingham gauge.

The low temperature (as compared with iron) at which steel plates have to be finished, causes a slight springing of the rolls, leaving the plate thicker in the center than on the edge. This is especially noticeable in plates less than $\frac{3}{8}$ inch thick and over 66 inches wide, which may be of full thickness on the edge and yet be as much as $\frac{1}{8}$ inch thicker in the middle.

Standard List of

Net Mill Extras on Galvanized Sheets

Extras for Widths

| | | |
|-----------------------------|--------------------------------------|---------------------|
| No. 10 to 15. | over 32 inches to 40 inches. | No extra |
| " | 40 " " 44 " | \$0.10 per 100 lbs. |
| " | 44 " " 48 " | .20 " |
| No. 16 to 18. | " 32 " " 36 " | No. extra |
| " | 36 " " 40 " | \$0.10 per 100 lbs. |
| " | 40 " " 44 " | .20 " |
| " | 44 " " 48 " | .30 " |
| No. 19 to 21. | " 32 " " 36 " | .20 " |
| " | 36 " " 40 " | .30 " |
| " | 40 " " 44 " | .40 " |
| " | 44 " " 48 " | .60 " |
| No. 22 to 24. | " 32 " " 36 " | .20 " |
| " | 36 " " 40 " | .30 " |
| " | 40 " " 44 " | .50 " |
| " | 44 " " 48 " | 1.00 " |
| No. 25 and 26. | " 32 " " 36 " | .20 " |
| " | 36 " " 40 " | .50 " |
| " | 40 " " 44 " | 1.00 " |
| No. 27. | " 32 " " 36 " | .20 " |
| " | 36 " " 40 " | .70 " |
| " | 40 " " 44 " | 1.20 " |
| No. 28. | " 32 " " 36 " | .20 " |
| " | 36 " " 40 " | .70 " |
| No. 29 and 30. | " 32 " " 36 " | .20 " |
| No. 18 and heavier under 24 | " " 12 " | .10 " |
| " | 12 " " 9 " | .20 " |
| No. 19 and lighter. | 24 " " 12 " | .25 " |

Extras for Lengths

| | | |
|-----------------------|---------------------------------------|---------------------|
| No. 10 to 30. | under 60 inches to 30 inches. | \$0.10 per 100 lbs. |
| " | 30 " " 24 " | .25 " |
| " | over 120 " " 144 " | .20 " |

Standard List of
Net Mill Extras on Black Sheet Steel

Extras for Widths

| | | |
|------------------------|---------------------|---------------------|
| No. 13 and heavier | 15 inches and wider | No. extra |
| No. 14 to 16 | 15 " to 48 inches | " |
| | over 48 " | \$0.05 per 100 lbs. |
| No. 16 & heavier under | 15 inches to 12 " | .05 " |
| | " 12 " " 9 " | .10 " |
| | " 9 " " 6 " | .15 " |
| No. 17 and 18 | 20 " " 36 " | No extra |
| | over 36 " " 48 " | \$0.05 per 100 lbs. |
| | " " 48 " | .10 " |
| | under 20 " " 12 " | .05 " |
| | " 12 " " 9 " | .10 " |
| | " 9 " " 6 " | .15 " |
| No. 19 and lighter | " 24 " " 12 " | .10 " |
| | " 12 " " 9 " | .20 " |
| | " 9 " " 6 " | .25 " |
| No. 19 to 21 | over 32 " " 36 " | .10 " |
| | " 36 " " 40 " | .15 " |
| | " 40 " " 44 " | .20 " |
| | " 44 " " 48 " | .30 " |
| No. 22 to 24 | " 32 " " 36 " | .10 " |
| | " 36 " " 40 " | .20 " |
| | " 40 " " 44 " | .40 " |
| | " 44 " " 48 " | .50 " |
| No. 25 to 26 | " 32 " " 36 " | .10 " |
| | " 36 " " 40 " | .30 " |
| | " 40 " " 44 " | .40 " |
| No. 27 | " 32 " " 36 " | .10 " |
| | " 36 " " 40 " | .40 " |
| | " 40 " " 44 " | .50 " |
| No. 28 | " 32 " " 36 " | .10 " |
| | " 36 " " 40 " | .40 " |
| No. 29 to 30 | " 32 " " 36 " | .20 " |

Standard List of Net Mill Extras on Black Sheet Steel

Extras for Lengths

| | | |
|--|-----------------------------------|---------------------|
| No. 13 and heavier. | 40 inches and longer. | No extra |
| No. 14 to 16. | 40 " to 144 inches. | " |
| | over 144 " | \$0.05 per 100 lbs. |
| No. 16 & heavier under 40 inches to 30 " | | .05 " |
| | " 30 " " 24 " | .10 " |
| | " 24 " " 18 " | .15 " |
| No. 17 to 18. | 48 " "132" " | No extra |
| | over 132 " | \$0.10 per 100 lbs. |
| | under 48 inches to 40 " | .05 " |
| | " 40 " " 24 " | .10 " |
| | " 24 " " 18 " | .15 " |
| No. 19 & lighter. | 60 " "120" " | No extra |
| | over 120 " "144" " | \$0.10 per 100 lbs. |
| | under 60 " " 30 " | .10 " |
| | " 30 " " 18 " | .20 " |

Extras for Black Sheet Finishes

| | |
|--|----------------------|
| Two Pass Cold Rolled. | Per 100 lbs. |
| Three Pass Cold Rolled. | " " " |
| Roller Leveled. | " " " |
| Patent Leveled. | " " " |
| Resquared. | " " " |
| Patent Leveled and Resquared. | " " " |
| Pickling. | " " " |
| Double Pickling, Cold Rolling and Re-annealing. | " " " |
| White Pickle Finish Cold Rolling and Re-annealing. | " " " |
| Deep Stamping Quality. | " " " |
| Electrical Quality. | " " " |
| Deoxidizing. | " " " |
| Painting. | " " " |

Sheet Mill Allowances for Variations in Weights and Shearing

Weights

A variation of $2\frac{1}{2}$ per cent is always allowed the mill above and below the United States standard weights per square foot.

Shearing

All shearing to be good mill practice, and when not ordered resquared a variation of $\frac{1}{8}$ inch in width and $\frac{1}{4}$ inch in length is a universal mill allowance on No. 16 and heavier. Lighter gauges Cold Rolled a variation of 1 inch in length is allowable.

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