

# Crosby Value Added

- **Charpy impact properties:** Crosby's Quenched and Tempered shackles have enhanced impact properties for greater toughness at all temperatures. If requested at the time of order, Crosby can provide Charpy impact properties.
- **Fatigue properties:** Fatigue properties are available for 1/3 to 55 metric ton shackles. These Crosby shackles are fatigue rated to 20,000 cycles at 1-1/2 times the Working Load Limit.
- **Ductility properties:** Typical ductility properties are available for all sizes upon special request.
- **Hardness levels and material tensile strengths:** Typical values are available for all sizes of shackles, and actual values can be furnished if requested at the time of order.
- **Proof Testing:** If requested at the time of order, shackles can be furnished proof tested with certificates.
- **Mag Certification:** If requested at the time of order, shackles can be Mag inspected with certificates.
- **Certification:** Certification to World Class Standards is available upon special request at the time of order; American Bureau of Shipping, Lloyds Register of Shipping, Det Norske Veritas, American Petroleum Institute, RINA, Nuclear Regulatory Commission, and several other world wide standards.
- **Applications:** *Round Pin Shackles* can be used in tie down, towing, suspension or lifting applications where the load is strictly applied in-line. *Screw Pin Shackles* can be used in any application where a round pin shackle is used. In addition, screw pin shackles can be used for applications involving side-loading circumstances. Reduced working load limits are required for side-loading applications. *Bolt-Type Shackles* can be used in any application where round pin or screw pin shackles are used. In addition, they are recommended for permanent or long-term installations and where the load may slide on the shackle pin causing the pin to rotate.
- **Material analysis:** Crosby can provide certified material (mill) analysis for each production lot, traceable by the Product Identification Code (PIC). Crosby, through its own laboratory, verifies the analysis of each heat of steel. Crosby purchases only special bar forging quality steel with specific cleanliness requirements and guaranteed hardenability.
- **Field inspection:** Written instructions for visual, magnaflux, and dye penetrant inspection of shackles are available from Crosby. In addition, acceptance criteria and repair procedures for shackles are available.
- **QUIC-CHECK®:** Shackles incorporate two marking indicators forged into the shackle bow at 45° angles from vertical. These are utilized to quickly check the approximate angle of a two-legged hitch or quickly check the angle of a single leg hitch when the shackle pin is secured and the pull of the load is off vertical or side loaded, thus requiring a reduction in the working load limit of the shackle.

## G-209

Screw pin anchor shackles meet the performance requirements of Federal Specification RR-C-271F Type IVA, Grade A, Class 2, except for those provisions required of the contractor.



## G-213

Round pin anchor shackles meet the performance requirements of Federal Specification RR-C-271F Type IVA, Grade A, Class 1, except for those provisions required of the contractor.



## G-2130

Bolt-type anchor shackles meet the performance requirements of Federal Specification RR-C-271F Type IVA, Grade A, Grade A, Class 3, except for those provisions required of the contractor.



## G-210

Screw pin chain shackles meet the performance requirements of Federal Specification RR-C-271F Type IVB, Grade A, Class 2, except for those provisions required of the contractor.



## G-215

Round pin chain shackles meet the performance requirements of Federal Specification RR-C-271F Type IVB, Grade A, Class 1, except for those provisions required of the contractor.



## G-2150

Bolt-type chain shackles meet the performance requirements of Federal Specification RR-C-271F Type IVB, Grade A, Class 3, except for those provisions required of the contractor.



# Crosby® Round Pin Shackles

**Load Rated®**

## ROUND PIN ANCHOR SHACKLES



**G-213 / S-213**

G-213 Round pin anchor shackles meet the performance requirements of Federal Specification RR-C-271F Type IVA, Grade A, Class 1, except for those provisions required of the contractor. For additional information, see page 444.

**Fatigue Rated®**

**"QT"**  
QUENCHED & TEMPERED

**QUIC-CHECK®**

**MAXTOUGH®**

- Capacities 1/2 through 35 metric tons.
- Forged - Quenched and Tempered, with alloy pins.
- Working Load Limit permanently shown on every shackle.
- Hot Dip galvanized or Self Colored.
- Fatigue rated.
- Shackles 25t and larger are **RFID EQUIPPED**.
- Shackles can be furnished proof tested with certificates to designated standards, such as ABS, DNV, Lloyds, or other certification. Charges for proof testing and certification available when requested at the time of order.
- Shackles are Quenched and Tempered and can meet DNV impact requirements of 42 joules (31 ft-lbs.) at -20 degree C (-4 degree F).
- Look for the Red Pin® . . . the mark of genuine Crosby quality.



## ROUND PIN CHAIN SHACKLES

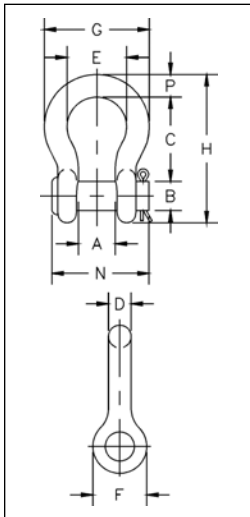


**G-215 / S-215**

G-215 Round pin chain shackles meet the performance requirements of Federal Specification RR-C-271F Type IVB, Grade A, Class 1, except for those provisions required of the contractor. For additional information, see page 444.

### APPLICATION INSTRUCTIONS SEE PAGE 89 OF THE GENERAL CATALOG

### G-213 / S-213



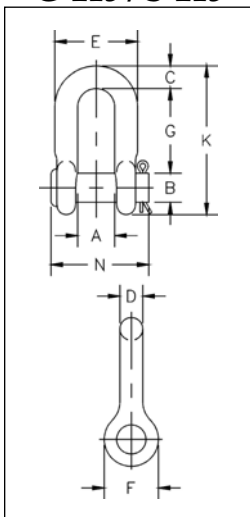
### G-213 / S-213 Round Pin Anchor Shackles

| Nominal Size (in.) | Working Load Limit (t)* | Stock No. |         | Weight Each (lbs.) | Dimensions (in.) |      |      |      |      |      |      |       |      |      |     | Tolerance +/- |  |
|--------------------|-------------------------|-----------|---------|--------------------|------------------|------|------|------|------|------|------|-------|------|------|-----|---------------|--|
|                    |                         | G-213     | S-213   |                    | A                | B    | C    | D    | E    | F    | G    | H     | N    | P    | C   | A             |  |
| 1/4                | 1/2                     | 1018017   | 1018026 | .13                | .47              | .31  | 1.13 | .25  | .78  | .61  | 1.28 | 1.84  | 1.34 | .25  | .06 | .06           |  |
| 5/16               | 3/4                     | 1018035   | 1018044 | .18                | .53              | .38  | 1.22 | .31  | .84  | .75  | 1.47 | 2.09  | 1.59 | .31  | .06 | .06           |  |
| 3/8                | 1                       | 1018053   | 1018062 | .29                | .66              | .44  | 1.44 | .38  | 1.03 | .91  | 1.78 | 2.49  | 1.86 | .38  | .13 | .06           |  |
| 7/16               | 1-1/2                   | 1018071   | 1018080 | .38                | .75              | .50  | 1.69 | .44  | 1.16 | 1.06 | 2.03 | 2.91  | 2.13 | .44  | .13 | .06           |  |
| 1/2                | 2                       | 1018099   | 1018106 | .71                | .81              | .63  | 1.88 | .50  | 1.31 | 1.19 | 2.31 | 3.28  | 2.38 | .50  | .13 | .06           |  |
| 5/8                | 3-1/4                   | 1018115   | 1018124 | 1.50               | 1.06             | .75  | 2.38 | .63  | 1.69 | 1.50 | 2.94 | 4.19  | 2.91 | .69  | .13 | .06           |  |
| 3/4                | 4-3/4                   | 1018133   | 1018142 | 2.32               | 1.25             | .88  | 2.81 | .75  | 2.00 | 1.81 | 3.50 | 4.97  | 3.44 | .81  | .25 | .06           |  |
| 7/8                | 6-1/2                   | 1018151   | 1018160 | 3.49               | 1.44             | 1.00 | 3.31 | .88  | 2.28 | 2.09 | 4.03 | 5.83  | 3.81 | .97  | .25 | .06           |  |
| 1                  | 8-1/2                   | 1018179   | 1018188 | 5.00               | 1.69             | 1.13 | 3.75 | 1.00 | 2.69 | 2.38 | 4.69 | 6.56  | 4.53 | 1.06 | .25 | .06           |  |
| 1-1/8              | 9-1/2                   | 1018197   | 1018204 | 6.97               | 1.81             | 1.25 | 4.25 | 1.13 | 2.91 | 2.69 | 5.16 | 7.47  | 5.13 | 1.25 | .25 | .06           |  |
| 1-1/4              | 12                      | 1018213   | 1018222 | 9.75               | 2.03             | 1.38 | 4.69 | 1.29 | 3.25 | 3.00 | 5.75 | 8.25  | 5.50 | 1.38 | .25 | .06           |  |
| 1-3/8              | 13-1/2                  | 1018231   | 1018240 | 13.25              | 2.25             | 1.50 | 5.25 | 1.42 | 3.63 | 3.31 | 6.38 | 9.16  | 6.13 | 1.50 | .25 | .13           |  |
| 1-1/2              | 17                      | 1018259   | 1018268 | 17.25              | 2.38             | 1.63 | 5.75 | 1.54 | 3.88 | 3.63 | 6.88 | 10.00 | 6.50 | 1.62 | .25 | .13           |  |
| 1-3/4              | 25                      | 1018277   | 1018286 | 29.46              | 2.88             | 2.00 | 7.00 | 1.84 | 5.00 | 4.19 | 8.86 | 12.34 | 7.75 | 2.25 | .25 | .13           |  |
| 2                  | 35                      | 1018295   | 1018302 | 45.75              | 3.25             | 2.25 | 7.75 | 2.08 | 5.75 | 4.81 | 9.97 | 13.68 | 8.75 | 2.40 | .25 | .13           |  |

\* NOTE: Maximum Proof Load is 2.0 times the Working Load Limit. Minimum Ultimate Strength is 6 times the Working Load Limit. For Working Load Limit reduction due to side loading applications, see page 91.

### G-215 / S-215 Round Pin Chain Shackles

### G-215 / S-215



| Nominal Size (in.) | Working Load Limit (t)* | Stock No. |         | Weight Each (lbs.) | Dimensions (in.) |      |      |      |      |      |      |       |      |     |     | Tolerance +/- |  |
|--------------------|-------------------------|-----------|---------|--------------------|------------------|------|------|------|------|------|------|-------|------|-----|-----|---------------|--|
|                    |                         | G-215     | S-215   |                    | A                | B    | C    | D    | E    | F    | G    | K     | N    | G   | A   |               |  |
| 1/4                | 1/2                     | 1018810   | 1018829 | .10                | .47              | .31  | .25  | .25  | .97  | .62  | .91  | 1.59  | 1.34 | .06 | .06 |               |  |
| 5/16               | 3/4                     | 1018838   | 1018847 | .18                | .53              | .38  | .31  | .31  | 1.15 | .75  | 1.07 | 1.91  | 1.63 | .06 | .06 |               |  |
| 3/8                | 1                       | 1018856   | 1018865 | .25                | .66              | .44  | .38  | .38  | 1.42 | .92  | 1.28 | 2.31  | 1.86 | .13 | .06 |               |  |
| 7/16               | 1-1/2                   | 1018874   | 1018883 | .40                | .75              | .50  | .44  | .44  | 1.63 | 1.06 | 1.48 | 2.67  | 2.13 | .13 | .06 |               |  |
| 1/2                | 2                       | 1018892   | 1018909 | .50                | .81              | .63  | .50  | .50  | 1.81 | 1.18 | 1.66 | 3.03  | 2.38 | .13 | .06 |               |  |
| 5/8                | 3-1/4                   | 1018918   | 1018927 | 1.21               | 1.06             | .75  | .63  | .63  | 2.32 | 1.50 | 2.04 | 3.76  | 2.91 | .13 | .06 |               |  |
| 3/4                | 4-3/4                   | 1018936   | 1018945 | 2.00               | 1.25             | .88  | .81  | .75  | 2.75 | 1.81 | 2.40 | 4.53  | 3.44 | .25 | .06 |               |  |
| 7/8                | 6-1/2                   | 1018954   | 1018963 | 3.28               | 1.44             | 1.00 | .97  | .88  | 3.20 | 2.10 | 2.86 | 5.33  | 3.81 | .25 | .06 |               |  |
| 1                  | 8-1/2                   | 1018972   | 1018981 | 4.75               | 1.69             | 1.13 | 1.00 | 1.00 | 3.69 | 2.38 | 3.24 | 5.94  | 4.53 | .25 | .06 |               |  |
| 1-1/8              | 9-1/2                   | 1018990   | 1019007 | 6.30               | 1.81             | 1.25 | 1.25 | 1.13 | 4.07 | 2.68 | 3.61 | 6.78  | 5.13 | .25 | .06 |               |  |
| 1-1/4              | 12                      | 1019016   | 1019025 | 9.00               | 2.03             | 1.38 | 1.38 | 1.25 | 4.53 | 3.00 | 3.97 | 7.50  | 5.50 | .25 | .13 |               |  |
| 1-3/8              | 13-1/2                  | 1019034   | 1019043 | 12.00              | 2.25             | 1.50 | 1.50 | 1.38 | 5.01 | 3.31 | 4.43 | 8.28  | 6.13 | .25 | .13 |               |  |
| 1-1/2              | 17                      | 1019052   | 1019061 | 16.15              | 2.38             | 1.63 | 1.62 | 1.50 | 5.38 | 3.62 | 4.87 | 9.05  | 6.50 | .25 | .13 |               |  |
| 1-3/4              | 25                      | 1019070   | 1019089 | 29.96              | 2.88             | 2.00 | 2.12 | 1.75 | 6.38 | 4.19 | 5.82 | 10.97 | 7.75 | .25 | .13 |               |  |
| 2                  | 35                      | 1019098   | 1019105 | 43.25              | 3.25             | 2.25 | 2.36 | 2.10 | 7.25 | 5.00 | 6.82 | 12.74 | 8.75 | .25 | .13 |               |  |

\* NOTE: Maximum Proof Load is 2.0 times the Working Load Limit. Minimum Ultimate Strength is 6 times the Working Load Limit. For Working Load Limit reduction due to side loading applications, see page 91.

# Crosby® Screw Pin Shackles

**Load Rated**

**Fatigue Rated**

**"QT"**  
QUENCHED & TEMPERED

**QUIC-CHECK®**

**MAXTOUGH®**

**"TA"**  
TYPE APPROVED

## SCREW PIN ANCHOR SHACKLES



**G-209 / S-209**

G-209 Screw pin anchor shackles meet the performance requirements of Federal Specification RR-C-271F Type IVA, Grade A, Class 2, except for those provisions required of the contractor. For additional information, see page 444.

- Capacities 1/3 thru 55 metric tons, grade 6.
- Forged - Quenched and Tempered, with alloy pins.
- Working Load Limit and grade "6" permanently shown on every shackle.
- Hot Dip galvanized or Self Colored.
- Fatigue rated.
- Shackles 25t and larger are **RFID EQUIPPED**.
- Shackles can be furnished proof tested with certificates to designated standards, such as ABS, DNV, Lloyds, or other certification. Charges for proof testing and certification available when requested at the time of order.
- Approved for use at -40 degree C (-40 degree F) to 204 degree C (400 degree F).
- 2t through 25t bow and screw pin are Certified to meet charpy impact testing of 42 joules (31 ft.-lbs.) min. ave. at -20 degree C (-4 degree F).
- All shackles are Quenched and Tempered and can meet DNV impact requirements of 42 joules (31 ft. lbs.) at -20 degree C (-4 degree F).
- Meets or exceeds all requirements of ASME B30.26.
- Type Approval and certification in accordance with ABS 2006 Steel Vessel Rules 1-1-17.7, and ABS Guide for Certification of Cranes.
- Crosby 2t through 25t G209 anchor shackles are type approved to DNV Certification Notes 2.7-1 -Offshore Containers. These Crosby shackles are statistical proof and impact tested. The tests are conducted by Crosby and 3.1 test certification is available upon request.
- Look for the Red Pin® . . . the mark of genuine Crosby quality.

## SCREW PIN CHAIN SHACKLES



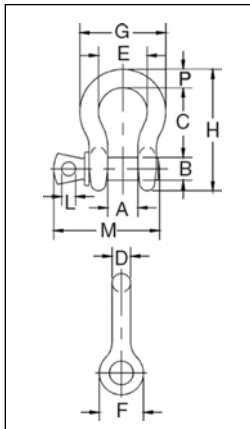
**G-210 / S-210**

G-210 Screw pin chain shackles meet the performance requirements of Federal Specification RR-C-271F, Type IVB, Grade A, Class 2, except for those provisions required of the contractor. For additional information, see page 444.

### G-209 / S-209 Screw Pin Anchor Shackles

| Nominal Size (in.) | Working Load Limit (t)* | Stock No. |         | Weight Each (lbs.) | Dimensions (in.) |      |       |      |      |      |       |       |      |       |      |     |     | Tolerance +/- |  |
|--------------------|-------------------------|-----------|---------|--------------------|------------------|------|-------|------|------|------|-------|-------|------|-------|------|-----|-----|---------------|--|
|                    |                         | G-209     | S-209   |                    | A                | B    | C     | D    | E    | F    | G     | H     | L    | M     | P    | C   | A   |               |  |
| 3/16               | 1/3                     | 1018357   | -       | .06                | .38              | .25  | .88   | .19  | .60  | .56  | .98   | 1.47  | .16  | 1.14  | .19  | .06 | .06 |               |  |
| 1/4                | 1/2                     | 1018375   | 1018384 | .10                | .47              | .31  | 1.13  | .25  | .78  | .61  | 1.28  | 1.84  | .19  | 1.43  | .25  | .06 | .06 |               |  |
| 5/16               | 3/4                     | 1018393   | 1018400 | .18                | .53              | .38  | 1.22  | .31  | .84  | .75  | 1.47  | 2.09  | .22  | 1.71  | .31  | .06 | .06 |               |  |
| 3/8                | 1                       | 1018419   | 1018428 | .31                | .66              | .44  | 1.44  | .38  | 1.03 | .91  | 1.78  | 2.49  | .25  | 2.02  | .38  | .13 | .06 |               |  |
| 7/16               | 1-1/2                   | 1018437   | 1018446 | .38                | .75              | .50  | 1.69  | .44  | 1.16 | 1.06 | 2.03  | 2.91  | .31  | 2.37  | .44  | .13 | .06 |               |  |
| 1/2                | 2                       | 1018455   | 1018464 | .72                | .81              | .63  | 1.88  | .50  | 1.31 | 1.19 | 2.31  | 3.28  | .38  | 2.69  | .50  | .13 | .06 |               |  |
| 5/8                | 3-1/4                   | 1018473   | 1018482 | 1.37               | 1.06             | .75  | 2.38  | .63  | 1.69 | 1.50 | 2.94  | 4.19  | .44  | 3.34  | .69  | .13 | .06 |               |  |
| 3/4                | 4-3/4                   | 1018491   | 1018507 | 2.35               | 1.25             | .88  | 2.81  | .75  | 2.00 | 1.81 | 3.50  | 4.97  | .50  | 3.97  | .81  | .25 | .06 |               |  |
| 7/8                | 6-1/2                   | 1018516   | 1018525 | 3.62               | 1.44             | 1.00 | 3.31  | .88  | 2.28 | 2.09 | 4.03  | 5.83  | .50  | 4.50  | .97  | .25 | .06 |               |  |
| 1                  | 8-1/2                   | 1018534   | 1018543 | 5.03               | 1.69             | 1.13 | 3.75  | 1.00 | 2.69 | 2.38 | 4.69  | 6.56  | .56  | 5.13  | 1.06 | .25 | .06 |               |  |
| 1-1/8              | 9-1/2                   | 1018552   | 1018561 | 7.41               | 1.81             | 1.25 | 4.25  | 1.16 | 2.91 | 2.69 | 5.16  | 7.47  | .63  | 5.71  | 1.25 | .25 | .06 |               |  |
| 1-1/4              | 12                      | 1018570   | 1018589 | 9.50               | 2.03             | 1.38 | 4.69  | 1.29 | 3.25 | 3.00 | 5.75  | 8.25  | .69  | 6.25  | 1.38 | .25 | .06 |               |  |
| 1-3/8              | 13-1/2                  | 1018598   | 1018605 | 13.53              | 2.25             | 1.50 | 5.25  | 1.42 | 3.63 | 3.31 | 6.38  | 9.16  | .75  | 6.83  | 1.50 | .25 | .13 |               |  |
| 1-1/2              | 17                      | 1018614   | 1018623 | 17.20              | 2.38             | 1.63 | 5.75  | 1.54 | 3.88 | 3.63 | 6.88  | 10.00 | .81  | 7.33  | 1.62 | .25 | .13 |               |  |
| 1-3/4              | 25                      | 1018632   | 1018641 | 27.78              | 2.88             | 2.00 | 7.00  | 1.84 | 5.00 | 4.19 | 8.86  | 12.34 | 1.00 | 9.06  | 2.25 | .25 | .13 |               |  |
| 2                  | 35                      | 1018650   | 1018669 | 45.00              | 3.25             | 2.25 | 7.75  | 2.08 | 5.75 | 4.81 | 9.97  | 13.68 | 1.22 | 10.35 | 2.40 | .25 | .13 |               |  |
| 2-1/2              | 55                      | 1018678   | 1018687 | 85.75              | 4.13             | 2.75 | 10.50 | 2.71 | 7.25 | 5.69 | 12.87 | 17.84 | 1.38 | 13.00 | 3.13 | .25 | .25 |               |  |

**G-209 / S-209**



### G-210 / S-210 Screw Pin Chain Shackles

| Nominal Size (in.) | Working Load Limit (t)* | Stock No. |         | Weight Each (lbs.) | Dimensions (in.) |      |      |      |      |      |      |       |      |       |     |     |  | Tolerance +/- |  |
|--------------------|-------------------------|-----------|---------|--------------------|------------------|------|------|------|------|------|------|-------|------|-------|-----|-----|--|---------------|--|
|                    |                         | G-210     | S-210   |                    | A                | B    | C    | D    | E    | F    | G    | K     | L    | M     | G   | A   |  |               |  |
| 1/4                | 1/2                     | 1019150   | 1019169 | .11                | .47              | .31  | .25  | .25  | .97  | .62  | .97  | 1.59  | .19  | 1.43  | .06 | .06 |  |               |  |
| 5/16               | 3/4                     | 1019178   | 1019187 | .17                | .53              | .38  | .31  | .31  | 1.15 | .75  | 1.07 | 1.91  | .22  | 1.71  | .06 | .06 |  |               |  |
| 3/8                | 1                       | 1019196   | 1019203 | .28                | .66              | .44  | .38  | .38  | 1.42 | .92  | 1.28 | 2.31  | .25  | 2.02  | .13 | .06 |  |               |  |
| 7/16               | 1-1/2                   | 1019212   | 1019221 | .43                | .75              | .50  | .44  | .44  | 1.63 | 1.06 | 1.48 | 2.67  | .31  | 2.37  | .13 | .06 |  |               |  |
| 1/2                | 2                       | 1019230   | 1019249 | .59                | .81              | .63  | .50  | .50  | 1.81 | 1.18 | 1.66 | 3.03  | .38  | 2.69  | .13 | .06 |  |               |  |
| 5/8                | 3-1/4                   | 1019258   | 1019267 | 1.25               | 1.06             | .75  | .63  | .63  | 2.32 | 1.50 | 2.40 | 3.76  | .44  | 3.34  | .13 | .06 |  |               |  |
| 3/4                | 4-3/4                   | 1019276   | 1019285 | 2.63               | 1.25             | .88  | .81  | .75  | 2.75 | 1.81 | 2.04 | 4.53  | .50  | 3.97  | .25 | .06 |  |               |  |
| 7/8                | 6-1/2                   | 1019294   | 1019301 | 3.16               | 1.44             | 1.00 | .97  | .88  | 3.20 | 2.10 | 2.86 | 5.33  | .50  | 4.50  | .25 | .06 |  |               |  |
| 1                  | 8-1/2                   | 1019310   | 1019329 | 4.75               | 1.69             | 1.13 | 1.00 | 1.00 | 3.69 | 2.38 | 3.24 | 5.94  | .56  | 5.13  | .25 | .06 |  |               |  |
| 1-1/8              | 9-1/2                   | 1019338   | 1019347 | 6.75               | 1.81             | 1.25 | 1.25 | 1.13 | 4.07 | 2.69 | 3.61 | 6.78  | .63  | 5.71  | .25 | .06 |  |               |  |
| 1-1/4              | 12                      | 1019356   | 1019365 | 9.06               | 2.03             | 1.38 | 1.38 | 1.25 | 4.53 | 3.00 | 3.97 | 7.50  | .69  | 6.25  | .25 | .13 |  |               |  |
| 1-3/8              | 13-1/2                  | 1019374   | 1019383 | 11.63              | 2.25             | 1.50 | 1.50 | 1.38 | 5.01 | 3.31 | 4.43 | 8.28  | .75  | 6.53  | .25 | .13 |  |               |  |
| 1-1/2              | 17                      | 1019392   | 1019409 | 15.95              | 2.38             | 1.63 | 1.62 | 1.50 | 5.38 | 3.62 | 4.87 | 9.05  | .81  | 7.33  | .25 | .13 |  |               |  |
| 1-3/4              | 25                      | 1019418   | 1019427 | 26.75              | 2.88             | 2.00 | 2.12 | 1.75 | 6.38 | 4.19 | 5.78 | 10.97 | 1.00 | 9.06  | .25 | .13 |  |               |  |
| 2                  | 35                      | 1019436   | 1019445 | 42.31              | 3.25             | 2.25 | 2.36 | 2.10 | 7.25 | 5.00 | 6.77 | 12.74 | 1.13 | 10.35 | .25 | .13 |  |               |  |
| 2-1/2              | 55                      | 1019454   | 1019463 | 71.75              | 4.12             | 2.75 | 2.63 | 2.63 | 9.38 | 5.68 | 8.07 | 14.85 | 1.38 | 13.00 | .25 | .25 |  |               |  |

\* NOTE: Maximum Proof Load is 2.0 times the Working Load Limit. Minimum Ultimate Strength is 6 times the Working Load Limit. For Working Load Limit reduction due to side loading applications, see page 91.

# Crosby® Alloy Screw Pin Shackles

**Load Rated®**



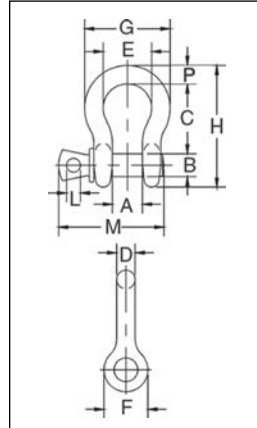
**APPLICATION INSTRUCTIONS**  
SEE PAGE 89 OF THE GENERAL CATALOG

## G-209A



G-209A Screw pin anchor shackles meet the performance requirements of Federal Specification RR-C-271F Type IVA, Grade B, Class 2, except for those provisions required of the contractor. For additional information, see page 444.

- Capacities 2 thru 21 metric tons. Meets performance requirements of Grade 8 shackles.
- Forged Alloy Steel – Quenched and Tempered, with alloy pins.
- Working Load Limit permanently shown on every shackle.
- Hot Dip Galvanized.
- Shackles can be furnished proof tested with certificates to designated standards, such as ABS, DNV, Lloyds, or other certification. Charges for proof testing and certification available when requested at the time of order.
- Approved for use at -40 degree C (-40 degree F) to 204 degree C (400 degree F).
- Meets or exceeds all requirements of ASME B30.26 including identification, ductility, design factor, proof load and temperature requirements. Importantly, these shackles meet other critical performance requirements including fatigue life, impact properties and material traceability, not addressed by ASME B30.26.



## G-209A Crosby® Alloy Screw Pin Shackles

| Nominal Size (in.) | Working Load Limit (t)* | G-209A Stock No. | Weight Each (lbs.) | Dimensions (in.) |      |      |      |      |      |      |      |     |      |      | Tolerance +/- |     |
|--------------------|-------------------------|------------------|--------------------|------------------|------|------|------|------|------|------|------|-----|------|------|---------------|-----|
|                    |                         |                  |                    | A                | B    | C    | D    | E    | F    | G    | H    | L   | M    | P    | C             | A   |
| 3/8                | 2                       | 1017450          | .31                | .66              | .44  | 1.44 | .38  | 1.03 | .91  | 1.78 | 2.49 | .25 | 2.03 | .38  | .13           | .06 |
| 7/16               | 2-2/3                   | 1017472          | .38                | .75              | .50  | 1.69 | .44  | 1.16 | 1.06 | 2.03 | 2.91 | .31 | 2.38 | .44  | .13           | .06 |
| 1/2                | 3-1/3                   | 1017494          | .63                | .81              | .63  | 1.88 | .50  | 1.31 | 1.19 | 2.31 | 3.28 | .38 | 2.69 | .50  | .13           | .06 |
| 5/8                | 5                       | 1017516          | 1.38               | 1.06             | .75  | 2.38 | .63  | 1.69 | 1.50 | 2.94 | 4.19 | .44 | 3.34 | .69  | .13           | .06 |
| 3/4                | 7                       | 1017538          | 2.35               | 1.25             | .88  | 2.81 | .75  | 2.00 | 1.81 | 3.50 | 4.97 | .50 | 3.97 | .81  | .25           | .06 |
| 7/8                | 9-1/2                   | 1017560          | 3.61               | 1.44             | 1.00 | 3.31 | .88  | 2.28 | 2.09 | 4.03 | 5.83 | .50 | 4.50 | .97  | .25           | .06 |
| 1                  | 12-1/2                  | 1017582          | 5.32               | 1.69             | 1.13 | 3.75 | 1.00 | 2.69 | 2.38 | 4.69 | 6.56 | .56 | 5.07 | 1.06 | .25           | .06 |
| 1-1/8              | 15                      | 1017604          | 7.25               | 1.81             | 1.25 | 4.25 | 1.16 | 2.91 | 2.69 | 5.16 | 7.47 | .63 | 5.59 | 1.25 | .25           | .06 |
| 1-1/4              | 18                      | 1017626          | 9.88               | 2.03             | 1.38 | 4.69 | 1.29 | 3.25 | 3.00 | 5.75 | 8.25 | .69 | 6.16 | 1.38 | .25           | .06 |
| 1-3/8              | 21                      | 1017648          | 13.25              | 2.25             | 1.50 | 5.25 | 1.42 | 3.63 | 3.31 | 6.38 | 9.16 | .75 | 6.84 | 1.50 | .25           | .13 |

\* Maximum Proof Load is 2 times the Working Load Limit (metric tons) and 2.2 times the Working Load Limit (short tons). Minimum Ultimate Strength is 4.5 times the Working Load Limit for metric tonnes, and 5 times the Working Load Limit for short tons. For Working Load Limit reduction due to side loading applications, see page 91.

**Load Rated®**



**APPLICATION INSTRUCTIONS**  
SEE PAGE 89 OF THE GENERAL CATALOG

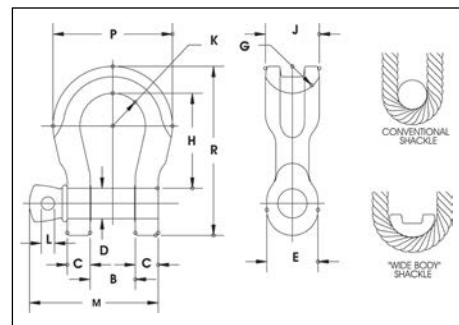
## G-2169



## S-2169



- Capacities of 7, 12.5 and 18 metric tons.
- Quenched and Tempered for maximum strength.
- Forged Alloy Steel.
- Available in galvanized and self colored finished.
- Individually proof tested and magnetic particle inspected. Crosby certification available at time of order.
- Meets or exceeds all requirements of ASME B30.26 including identification, ductility, design factor, proof load and temperature requirements. Importantly, these shackles meet other critical performance requirements including fatigue life, impact properties and material traceability, not addressed by ASME B30.26.
- Look for the Red Pin® . . . the mark of genuine Crosby quality.



## G-2169 / S-2169 Screw Pin "Wide Body" Shackles

| Working Load Limit (t)* | G-2169 Stock No. | S-2169 Stock No. | Weight Each (lbs.) | Dimensions (in.) |      |           |      |      |      |      |      |     |      |      |      |  |  |
|-------------------------|------------------|------------------|--------------------|------------------|------|-----------|------|------|------|------|------|-----|------|------|------|--|--|
|                         |                  |                  |                    | B +/- .25        | C    | D +/- .02 | E    | G    | H    | J    | K    | L   | M    | P    | R    |  |  |
| 7                       | 1021655          | 1021664          | 3.5                | 1.25             | .69  | .88       | 1.82 | 1.25 | 3.56 | 1.60 | 1.25 | .50 | 3.97 | 4.10 | 5.87 |  |  |
| 12.5                    | 1021673          | 1021682          | 8.8                | 1.69             | .92  | 1.13      | 2.38 | 1.37 | 4.63 | 2.13 | 1.63 | .56 | 5.13 | 5.51 | 7.63 |  |  |
| 18                      | 1021691          | 1021699          | 13                 | 2.03             | 1.16 | 1.38      | 2.69 | 1.50 | 5.81 | 2.50 | 2.00 | .69 | 6.25 | 6.76 | 9.38 |  |  |

\* Ultimate Load is 5 times the Working Load Limit. Forged Alloy Steel. Proof Load is 2 times the Working Load Limit.

# Crosby® Bolt Type Shackles

**Load Rated**

**Fatigue Rated**

**QT**

**QUIC-CHECK®**

**MAXTOUGH®**

**TA**

## BOLT TYPE ANCHOR SHACKLES



### G-2130 / S-2130

G-2130 Bolt Type Anchor shackles with thin head bolt - nut with cotter pin. Meets the performance requirements of Federal Specification RR-C-271F Type IVA, Grade A, Class 3, except for those provisions required of the contractor. For additional information, see page 444.

- Capacities 1/3 thru 150 metric tons, grade 6.
- Working Load Limit and grade "6" permanently shown on every shackle.
- Forged - Quenched and Tempered, with alloy pins.
- Hot Dip galvanized or Self Colored. (85, 120, and 150 metric ton shackles are all hot dip galvanized bows and the bolts are Dimetcoated® and painted red)
- Fatigue rated (1/3t - 55t).
- Shackles 25t and larger are **RFID EQUIPPED**.
- Approved for use at -40 degree C (-40 degree F) to 204 degree C (400 degree F).
- Meets or exceeds all requirements of ASME B30.26.
- Shackles 85 metric tons and larger are individually proof tested to 2.0 times the working load limit.
- Shackles 120 metric tons and larger are proof tested, Magnetic Particle Inspected and provided with Serialized Pin and Bow.
- Type Approval and certification in accordance with ABS 2006 Steel Vessel Rules 1-1-17.7, and ABS Guide for Certification of Cranes.
- 3.1 Certification as standard available for charpy and statistical proof test for pg 79 only up to 25 tons to DNV2.7-1 and EN13889.
- Crosby 2t through 25t G2130 anchor shackles are type approved to DNV Certification Notes 2.7-1- Offshore Containers. These Crosby shackles are statistical proof and impact tested to 42 joules (31 ft.-lbs.) min. ave. at -20 degree C (-4 degree F). The tests are conducted by Crosby and 3.1 test certification is available upon request. Refer to page 76 for Crosby COLD TUFF® shackles that meet the additional requirements of DNV rules for certification of lifting applications - Loose Gear.
- All other 2130 and all 2150 shackles can meet charpy requirements of 42 joules (31 ft.-lbs) avg at -20 degree C (-4 degree F) upon special request.
- Look for the Red Pin® . . . the mark of genuine Crosby quality.



## BOLT TYPE CHAIN SHACKLES

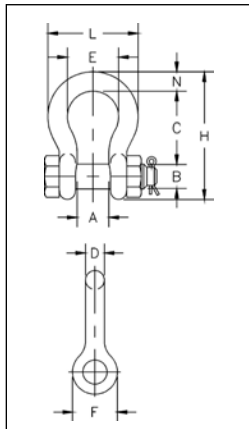


### G-2150 / S-2150

G-2150 Bolt Type Chain shackles. Thin hex head bolt - nut with cotter pin. Meets the performance requirements of Federal Specification RR-C-271F Type IVB, Grade A, Class 3, except for those provisions required of the contractors. For additional information, see page 444.

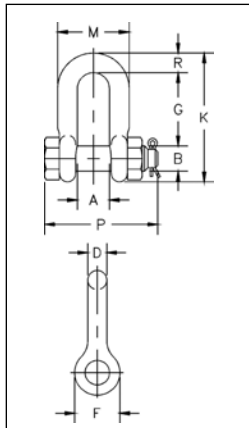
Shackles

### G-2130 / S-2130



| Nominal Size (in.) | Working Load Limit (t)* | Stock No. |         | Weight Each (lbs.) | Dimensions (in.) |      |       |      |       |      |       |       |      |     | Tolerance +/- |  |
|--------------------|-------------------------|-----------|---------|--------------------|------------------|------|-------|------|-------|------|-------|-------|------|-----|---------------|--|
|                    |                         | G-2130    | S-2130  |                    | A                | B    | C     | D    | E     | F    | H     | L     | N    | C   | A             |  |
| 3/16               | 1/3 ‡                   | 1019464   | -       | .06                | .38              | .25  | .88   | .19  | .60   | .56  | 1.47  | .98   | .19  | .06 | .06           |  |
| 1/4                | 1/2                     | 1019466   | -       | .11                | .47              | .31  | 1.13  | .25  | .78   | .61  | 1.84  | 1.28  | .25  | .06 | .06           |  |
| 5/16               | 3/4                     | 1019468   | -       | .22                | .53              | .38  | 1.22  | .31  | .84   | .75  | 2.09  | 1.47  | .31  | .06 | .06           |  |
| 3/8                | 1                       | 1019470   | -       | .33                | .66              | .44  | 1.44  | .38  | 1.03  | .91  | 2.49  | 1.78  | .38  | .13 | .06           |  |
| 7/16               | 1-1/2                   | 1019471   | -       | .49                | .75              | .50  | 1.69  | .44  | 1.16  | 1.06 | 2.91  | 2.03  | .44  | .13 | .06           |  |
| 1/2                | 2                       | 1019472   | 1019481 | .79                | .81              | .64  | 1.88  | .50  | 1.31  | 1.19 | 3.28  | 2.31  | .50  | .13 | .06           |  |
| 5/8                | 3-1/4                   | 1019490   | 1019506 | 1.68               | 1.06             | .77  | 2.38  | .63  | 1.69  | 1.50 | 4.19  | 2.94  | .69  | .13 | .06           |  |
| 3/4                | 4-3/4                   | 1019515   | 1019524 | 2.72               | 1.25             | .89  | 2.81  | .75  | 2.00  | 1.81 | 4.97  | 3.50  | .81  | .25 | .06           |  |
| 7/8                | 6-1/2                   | 1019533   | 1019542 | 3.95               | 1.44             | 1.02 | 3.31  | .88  | 2.28  | 2.09 | 5.83  | 4.03  | .97  | .25 | .06           |  |
| 1                  | 8-1/2                   | 1019551   | 1019560 | 5.66               | 1.69             | 1.15 | 3.75  | 1.00 | 2.69  | 2.38 | 6.56  | 4.69  | 1.06 | .25 | .06           |  |
| 1-1/8              | 9-1/2                   | 1019579   | 1019588 | 8.27               | 1.81             | 1.25 | 4.25  | 1.13 | 2.91  | 2.69 | 7.47  | 5.16  | 1.25 | .25 | .06           |  |
| 1-1/4              | 12                      | 1019597   | 1019604 | 11.71              | 2.03             | 1.40 | 4.69  | 1.29 | 3.25  | 3.00 | 8.25  | 5.75  | 1.38 | .25 | .06           |  |
| 1-3/8              | 13-1/2                  | 1019613   | 1019622 | 15.83              | 2.25             | 1.53 | 5.25  | 1.42 | 3.63  | 3.31 | 9.16  | 6.38  | 1.50 | .25 | .13           |  |
| 1-1/2              | 17                      | 1019631   | 1019640 | 19.00              | 2.38             | 1.66 | 5.75  | 1.53 | 3.88  | 3.63 | 10.00 | 6.88  | 1.62 | .25 | .13           |  |
| 1-3/4              | 25                      | 1019659   | 1019668 | 33.91              | 2.88             | 2.04 | 7.00  | 1.84 | 5.00  | 4.19 | 12.34 | 8.80  | 2.25 | .25 | .13           |  |
| 2                  | 35                      | 1019677   | 1019686 | 52.25              | 3.25             | 2.30 | 7.75  | 2.08 | 5.75  | 4.81 | 13.68 | 10.15 | 2.40 | .25 | .13           |  |
| 2-1/2              | 55                      | 1019695   | 1019702 | 98.25              | 4.13             | 2.80 | 10.50 | 2.71 | 7.25  | 5.69 | 17.90 | 12.75 | 3.13 | .25 | .25           |  |
| 3                  | † 85                    | 1019711   | -       | 154.00             | 5.00             | 3.30 | 13.00 | 3.12 | 7.88  | 6.50 | 21.50 | 14.62 | 3.62 | .25 | .25           |  |
| 3-1/2              | † 120 ‡                 | 1019739   | -       | 265.00             | 5.25             | 3.76 | 14.63 | 3.62 | 9.00  | 8.00 | 24.88 | 17.02 | 4.38 | .25 | .25           |  |
| 4                  | † 150 ‡                 | 1019757   | -       | 338.00             | 5.50             | 4.26 | 14.50 | 4.00 | 10.00 | 9.00 | 25.68 | 18.00 | 4.56 | .25 | .25           |  |

### G-2150 / S-2150



| Nominal Size (in.) | Working Load Limit (t)* | Stock No. |         | Weight Each (lbs.) | Dimensions (in.) |      |      |      |      |       |       |       |      |     | Tolerance +/- |  |
|--------------------|-------------------------|-----------|---------|--------------------|------------------|------|------|------|------|-------|-------|-------|------|-----|---------------|--|
|                    |                         | G-2150    | S-2150  |                    | A                | B    | D    | F    | G    | K     | M     | P     | R    | G   | A             |  |
| 1/4                | 1/2                     | 1019768   | -       | .13                | .47              | .31  | .25  | .62  | .91  | 1.59  | .97   | 1.56  | .25  | .06 | .06           |  |
| 5/16               | 3/4                     | 1019770   | -       | .23                | .53              | .38  | .31  | .75  | 1.07 | 1.91  | 1.15  | 1.82  | .31  | .06 | .06           |  |
| 3/8                | 1                       | 1019772   | -       | .33                | .66              | .44  | .38  | .92  | 1.28 | 2.31  | 1.42  | 2.17  | .38  | .13 | .06           |  |
| 7/16               | 1-1/2                   | 1019774   | -       | .49                | .75              | .50  | .44  | 1.06 | 1.48 | 2.67  | 1.63  | 2.51  | .44  | .13 | .06           |  |
| 1/2                | 2                       | 1019775   | 1019784 | .75                | .81              | .64  | .50  | 1.18 | 1.66 | 3.03  | 1.81  | 2.80  | .50  | .13 | .06           |  |
| 5/8                | 3-1/4                   | 1019793   | 1019800 | 1.47               | 1.06             | .77  | .63  | 1.50 | 2.04 | 3.76  | 2.32  | 3.56  | .63  | .13 | .06           |  |
| 3/4                | 4-3/4                   | 1019819   | 1019828 | 2.52               | 1.25             | .89  | .75  | 1.81 | 2.40 | 4.53  | 2.75  | 4.15  | .81  | .25 | .06           |  |
| 7/8                | 6-1/2                   | 1019837   | 1019846 | 3.85               | 1.44             | 1.02 | .88  | 2.10 | 2.86 | 5.33  | 3.20  | 4.82  | .97  | .25 | .06           |  |
| 1                  | 8-1/2                   | 1019855   | 1019864 | 5.55               | 1.69             | 1.15 | 1.00 | 2.38 | 3.24 | 5.94  | 3.69  | 5.39  | 1.00 | .25 | .06           |  |
| 1-1/8              | 9-1/2                   | 1019873   | 1019882 | 7.60               | 1.81             | 1.25 | 1.13 | 2.68 | 3.61 | 6.78  | 4.07  | 5.90  | 1.25 | .25 | .06           |  |
| 1-1/4              | 12                      | 1019891   | 1019908 | 10.81              | 2.03             | 1.40 | 1.25 | 3.00 | 3.97 | 7.50  | 4.53  | 6.69  | 1.38 | .25 | .06           |  |
| 1-3/8              | 13-1/2                  | 1019917   | 1019926 | 13.75              | 2.25             | 1.53 | 1.38 | 3.31 | 4.43 | 8.28  | 5.01  | 7.21  | 1.50 | .25 | .13           |  |
| 1-1/2              | 17                      | 1019935   | 1019944 | 18.50              | 2.38             | 1.66 | 1.50 | 3.62 | 4.87 | 9.05  | 5.38  | 7.73  | 1.62 | .25 | .13           |  |
| 1-3/4              | 25                      | 1019953   | 1019962 | 31.40              | 2.88             | 2.04 | 1.75 | 4.19 | 5.82 | 10.97 | 6.38  | 9.33  | 2.12 | .25 | .13           |  |
| 2                  | 35                      | 1019971   | 1019980 | 46.75              | 3.25             | 2.30 | 2.10 | 5.00 | 6.82 | 12.74 | 7.25  | 10.41 | 2.36 | .25 | .13           |  |
| 2-1/2              | 55                      | 1019999   | 1020004 | 85.00              | 4.12             | 2.80 | 2.63 | 5.68 | 8.07 | 14.85 | 9.38  | 13.58 | 2.63 | .25 | .25           |  |
| 3                  | † 85                    | 1020013   | -       | 124.25             | 5.00             | 3.25 | 3.00 | 6.50 | 8.56 | 16.87 | 11.00 | 15.13 | 3.50 | .25 | .25           |  |

\* NOTE: Maximum Proof Load is 2.0 times the Working Load Limit. Minimum Ultimate Strength is 6 times the Working Load Limit. For Working Load Limit reduction due to side loading applications, see page 91.

† Individually Proof Tested with certification.

‡ Furnished in Anchor style only and furnished with Round Head Bolts with welded handles.

# Crosby® Alloy Bolt Type Shackles



**APPLICATION INSTRUCTIONS**  
SEE PAGE 89 OF THE GENERAL CATALOG

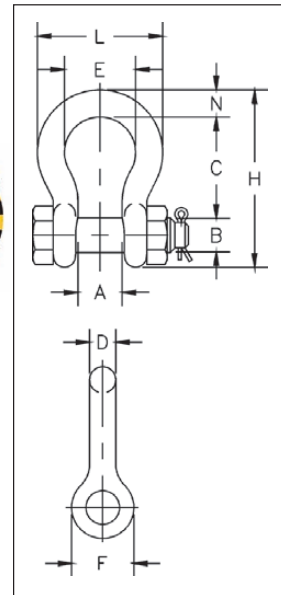
## G-2130A ALLOY BOLT TYPE SHACKLES GRADE 80



### G-2130A

Bolt Type Anchor shackles with thin head bolt – nut with cotter pin. Meets the performance requirements of Federal Specification RR-C-271F Type IVA, Grade B, Class 3, except for those provisions required of the contractor. For additional information, see page 444.

- Capacities 2 to 17 metric tons.
- Working Load Limit permanently shown on every shackle.
- Forged Alloy Steel – Quenched and Tempered, with bow and bolt.
- Hot Dip galvanized.
- Shackles can be **RFID EQUIPPED**.
- Meets or exceeds all requirements of ASME B30.26 including identification, ductility, design factor, proof load and temperature requirements. Importantly, these shackles meet other critical performance requirements including impact properties and material traceability, not addressed by ASME B30.26.
- Shackles can be furnished proof tested with certificates to designated standards, such as ABS, DNV, Lloyds, or other certification when requested at time of order.
- Type Approval and certification in accordance with DNV Type Approval under DNV 2.7-1.
- Shackles are Quenched and Tempered and meets DNV impact requirements of 42 joules (31 ft. lbs.) at -40 degree C (-40 degree F).



## G-2130A Alloy Bolt Type Shackles Grade 80

| Nominal Size (in.) | Working Load Limit (t)* | G-2130A Stock No. | Weight Each (lbs.) | Dimensions (in) |      |      |      |      |      |      |      |      | Tolerance +/- |      |
|--------------------|-------------------------|-------------------|--------------------|-----------------|------|------|------|------|------|------|------|------|---------------|------|
|                    |                         |                   |                    | A               | B    | C    | D    | E    | F    | H    | L    | N    | C             | A    |
| 1/2                | 2                       | 1219472           | .79                | .81             | .63  | 1.88 | 0.50 | 1.31 | 1.19 | 3.29 | 2.30 | 0.50 | 0.13          | 0.06 |
| 5/8                | 3-1/4                   | 1219491           | 1.37               | 1.06            | .75  | 2.38 | 0.63 | 1.69 | 1.50 | 4.18 | 2.94 | 0.69 | 0.25          | 0.06 |
| 3/4                | 4-3/4                   | 1219516           | 2.71               | 1.25            | .88  | 2.82 | 0.75 | 2.01 | 1.81 | 4.96 | 3.51 | 0.81 | 0.25          | 0.06 |
| 7/8                | 6-1/2                   | 1219534           | 3.95               | 1.44            | 1.00 | 3.31 | 0.88 | 2.29 | 2.09 | 5.83 | 4.02 | 0.97 | 0.25          | 0.06 |
| 1                  | 8-1/2                   | 1219552           | 5.03               | 1.69            | 1.10 | 3.76 | 1.00 | 2.70 | 2.38 | 6.58 | 4.69 | 1.06 | 0.25          | 0.06 |
| 1-1/8              | 9-1/2                   | 1219578           | 8.27               | 1.81            | 1.25 | 4.26 | 1.13 | 2.92 | 2.70 | 7.49 | 5.16 | 1.25 | 0.25          | 0.06 |
| 1-1/4              | 12                      | 1219598           | 11.7               | 2.03            | 1.38 | 4.69 | 1.25 | 3.25 | 2.99 | 8.27 | 5.75 | 1.38 | 0.25          | 0.06 |
| 1-3/8              | 13-1/2                  | 1219614           | 15.8               | 2.25            | 1.50 | 5.24 | 1.38 | 3.62 | 3.31 | 9.18 | 6.38 | 1.50 | 0.25          | 0.13 |
| 1-1/2              | 17                      | 1219632           | 19.0               | 2.38            | 1.63 | 5.75 | 1.50 | 3.88 | 3.62 | 10.0 | 6.90 | 1.62 | 0.25          | 0.13 |

\* NOTE: Maximum Proof Load is 2.0 times the Working Load Limit. Minimum Ultimate Strength is 8 times the Working Load Limit. For Working Load Limit reduction due to side loading applications, see page 91.