

# Rigging Hardware

TOP PRODUCTS FOR YOUR CHOICE





# Top Products for Your Choice

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# ABOUT COMPANY



**150+**  
CUSTOMERS



**45+**  
COUNTRIES

Qingdao D&L Group Ltd. is an exporting company focusing on design, manufacture, sales, and service. After 20+ years of operation improvement and experience, we have grown to become a modern enterprise with a series of products developing full range of rigging hardware products. Our products are popularly used in machinery, construction, petrochemical, mining, as well as other industries. With top-of-the-line production technology, an effective quality management system, and excellent after-sales service, our company was certified by ISO9001 in 2006.

With more than 30 employees, our company has achieved an annual exporting volume of more than 30 million US dollars. Our high-quality products are exported to more than 150 customers in over 45 countries and regions on 5 continents. Through integrity, service, and product quality, Qingdao D&L Group Ltd. has achieved a high reputation and trust in the industry, as well as among our existing clients.

SINCE 1999



# SUPERIOR SERVICES



## Excellent services

Qingdao D&L Group Ltd. provides you with comprehensive quality service. Our company has a wide range of commodity information network, and an elite team with abundant business experience and strong operational ability.



## Efficiently Sourcing

After over 20 years of development and advancement, our company is engaged in exporting full sets of rigging hardware products. Our product series are continuously expanding, with consistent on-going product innovations. At Qingdao D&L Group Ltd. we help our clients find the most suitable product for them rapidly and accurately through over 100 well-known suppliers who we have partnered with for many years.



# QUALITY CONTROL



## Forging up to 2500 ton

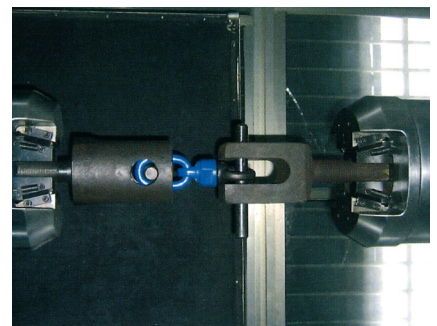
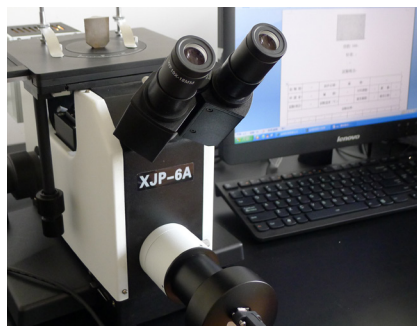
The forging process produces parts with consistent metallurgical quality and with good strength and fatigue properties. Forged parts have better tolerance and higher reliability compared to cast or machined parts.



## Strictly-controlled QC



Qingdao D&L Group Ltd. strictly controls the purchasing of raw materials from the beginning, implementing ISO production standards in production process. Every production operation is executed in accordance with the requirements of manufacture process cards.





# PUNCTUAL DELIVERY



## Punctual Delivery

We always pay high attention to the management of delivery time. We could ensure high working efficiency and execution quality ensuring our ability for punctual delivery. Through detailed production plan layout, process control supported by efficient and versatile ERP software, as well as monthly delivery assessment for all units, you could rest assure on our punctual delivery time.

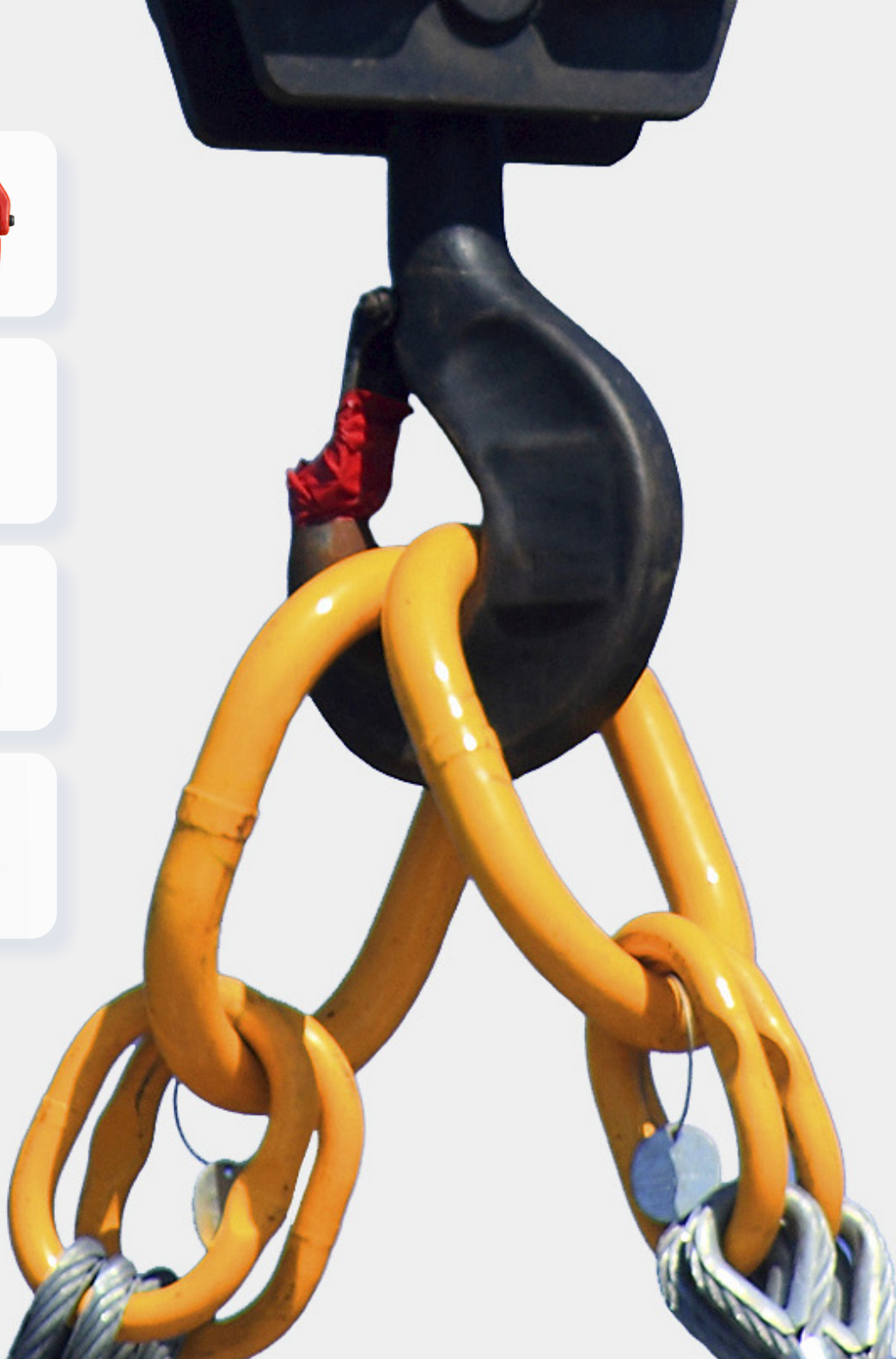


## All-around Logistics



Qingdao D&L Group Ltd. provides preferential freight rates and sufficient shipping space, as well as accurate, fast, convenient, and professional international logistics services.





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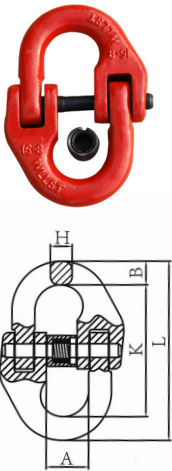
## G80/G100 CHAIN & G80/G100 CHAIN FITTING



## 1.1

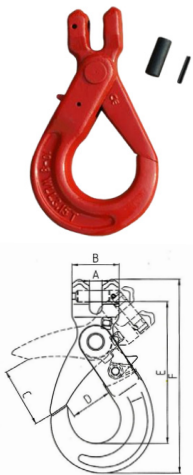
## G80 Chain Fitting

## G80 European Type Connecting Link



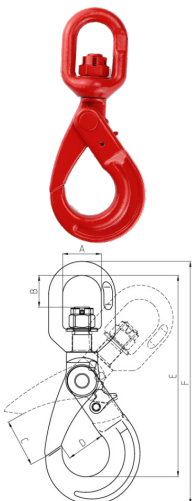
| ITEM  | WEIGHT(KG) | WLL(T) | B.L(T) | A±1.5(mm) | B±1(mm) | L±2.5(mm) | K±2(mm) | H±1(mm) |
|-------|------------|--------|--------|-----------|---------|-----------|---------|---------|
| 6-8   | 0.08       | 1.12   | 4.48   | 15        | 7.5     | 58        | 42      | 7       |
| 7-8   | 0.145      | 1.5    | 6      | 20        | 8.5     | 73        | 54.8    | 8.5     |
| 7/8-8 | 0.146      | 2      | 8      | 20.5      | 9.5     | 79.5      | 60.5    | 8.5     |
| 8-8   | 0.16       | 2      | 8      | 20.5      | 9.5     | 79.5      | 60.5    | 8.5     |
| 10-8  | 0.3        | 3.15   | 12.6   | 26        | 12      | 90.5      | 68      | 11.5    |
| 13-8  | 0.65       | 5.3    | 21.2   | 30        | 15      | 117       | 87      | 15      |
| 16-8  | 1.15       | 8      | 32     | 35        | 19.8    | 148       | 108.4   | 19.8    |
| 18-8  | 1.84       | 10     | 40     | 38        | 21      | 154       | 112     | 21      |
| 20-8  | 2.1        | 12.5   | 50     | 41        | 24      | 169.5     | 121.5   | 24      |
| 22-8  | 2.87       | 15     | 60     | 49.5      | 26      | 193.5     | 141.5   | 26      |
| 26-8  | 4.5        | 21.2   | 84.8   | 57.5      | 31      | 220       | 158     | 30      |
| 32-8  | 8.21       | 31.5   | 126    | 67.5      | 38      | 281       | 205     | 37      |

## G80 European Type Clevis Self-locking Hook



| ITEM    | WEIGHT (KG) | WLL (T) | B.L (T) | A±1 (mm) | B±1 (mm) | C±2 (mm) | D±2 (mm) | E±3 (mm) | F±3 (mm) |
|---------|-------------|---------|---------|----------|----------|----------|----------|----------|----------|
| 6-8     | 0.44        | 1.12    | 4.48    | 8        | 32       | 35       | 28       | 99       | 134      |
| 7/8-8   | 0.8         | 2       | 8       | 9.5      | 38.5     | 39       | 39       | 119.3    | 161.9    |
| 10-8    | 1.38        | 3.15    | 12.6    | 12.5     | 48       | 48       | 45       | 142      | 195      |
| 13-8    | 2.81        | 5.3     | 21.2    | 15       | 59       | 60       | 52.5     | 180      | 249      |
| 16-8    | 6           | 8       | 32      | 18.5     | 77       | 65       | 63.3     | 225      | 310      |
| 18/20-8 | 7.25        | 12.5    | 50      | 24       | 77       | 85       | 86       | 238      | 335      |
| 22-8    | 12.8        | 15      | 60      | 25       | 97.5     | 83       | 76       | 277      | 392      |
| 26-8    | 21.8        | 21.2    | 84.8    | 30       | 118      | 116      | 96       | 312      | 450      |
| 32-8    | 49.6        | 31.5    | 126     | 35       | 150      | 140      | 135      | 416      | 589.6    |

## G80 European Type Swivel Self-locking Hook

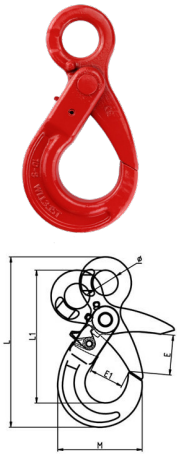


| ITEM    | WEIGHT (KG) | WLL (T) | B.L (T) | A±1 (mm) | B±1 (mm) | C±2 (mm) | D±2 (mm) | E±3 (mm) | F±3 (mm) |
|---------|-------------|---------|---------|----------|----------|----------|----------|----------|----------|
| 6-8     | 0.71        | 1.12    | 4.48    | 32.5     | 25.5     | 32       | 28       | 152.5    | 184      |
| 7/8-8   | 1.15        | 2       | 8       | 36       | 29.5     | 40       | 35       | 189      | 228      |
| 10-8    | 1.86        | 3.15    | 12.6    | 42       | 35       | 50       | 45       | 223      | 268      |
| 13-8    | 3.51        | 5.3     | 21.2    | 50       | 41       | 60       | 52.5     | 267      | 324      |
| 16-8    | 7.33        | 8       | 32      | 70       | 58       | 65       | 63       | 330      | 416      |
| 18/20-8 | 10.3        | 12.5    | 50      | 72       | 63       | 82       | 85       | 370      | 452      |
| 22-8    | 17.5        | 15      | 60      | 97       | 98       | 85       | 76       | 466      | 564      |
| 26-8    | 23          | 21.2    | 84.8    | 123      | 115      | 112      | 96       | 544      | 661      |
| 32-8    | 81          | 31.5    | 126     | 140      | 147      | 135      | 135      | 679      | 830      |

## 1.1

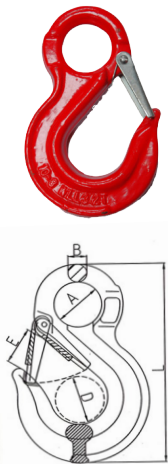
## G80 Chain Fitting

## G80 European Type Eye Self-locking Hook



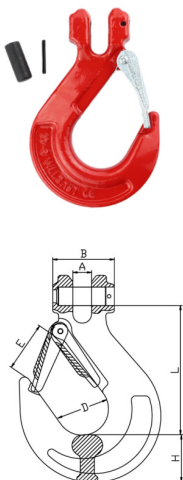
| ITEM  | WEIGHT (KG) | WLL (T) | B.L (T) | $\phi \pm 1.5$ (mm) | E $\pm 2$ (mm) | E1 $\pm 2$ (mm) | L1 $\pm 3$ (mm) | L $\pm 3$ (mm) |
|-------|-------------|---------|---------|---------------------|----------------|-----------------|-----------------|----------------|
| 6-8   | 0.5         | 1.12    | 4.48    | 21                  | 35             | 28              | 110             | 140            |
| 7/8-8 | 0.88        | 2       | 8       | 25                  | 40             | 35              | 136             | 175            |
| 10-8  | 1.58        | 3.15    | 12.6    | 34.5                | 48             | 45              | 168             | 213            |
| 13-8  | 3           | 5.3     | 21.2    | 40                  | 65             | 52.5            | 207             | 268            |
| 16-8  | 5.9         | 8       | 32      | 50                  | 65             | 63              | 254             | 332            |
| 20-8  | 7           | 12.5    | 50      | 64.5                | 85             | 85              | 278             | 360            |
| 22-8  | 12.3        | 15      | 60      | 72                  | 80             | 76              | 319             | 415            |
| 26-8  | 20          | 21.2    | 84.8    | 80                  | 120            | 96              | 362             | 472            |
| 32-8  | 44          | 31.5    | 126     | 105                 | 140            | 133             | 470             | 614            |

## G80 European Type Eye Sling Hook



| ITEM  | WEIGHT (KG) | WLL (T) | B.L (T) | B $\pm 1.5$ (mm) | E $\pm 2$ (mm) | D $\pm 2$ (mm) | A $\pm 3$ (mm) | L $\pm 2$ (mm) |
|-------|-------------|---------|---------|------------------|----------------|----------------|----------------|----------------|
| 6-8   | 0.3         | 1.12    | 4.48    | 9                | 21.5           | 20             | 20             | 108            |
| 7/8-8 | 0.4         | 2       | 8       | 11               | 27.5           | 24             | 25             | 133            |
| 10-8  | 0.9         | 3.15    | 12.6    | 15               | 27.2           | 38             | 38             | 167            |
| 13-8  | 2.2         | 5.3     | 21.2    | 19               | 38.5           | 51             | 43             | 213            |
| 16-8  | 3.2         | 8       | 32      | 23               | 42             | 62             | 50             | 255            |
| 20-8  | 5.8         | 12.5    | 50      | 24               | 44.6           | 74.8           | 63             | 305            |
| 22-8  | 9.2         | 15      | 60      | 32               | 70             | 68             | 62             | 348            |
| 26-8  | 13          | 21.2    | 84.8    | 35               | 84             | 84             | 64             | 394            |
| 32-8  | 18.5        | 31.5    | 126     | 37               | 102            | 100            | 88             | 480            |

## G80 European Type Clevis Sling Hook



| ITEM  | WEIGHT (KG) | WLL (T) | B.L (T) | A $\pm 0.5$ (mm) | B $\pm 1.5$ (mm) | D $\pm 1$ (mm) | H $\pm 2$ (mm) | L $\pm 1$ (mm) | E $\pm 2$ (mm) |
|-------|-------------|---------|---------|------------------|------------------|----------------|----------------|----------------|----------------|
| 6-8   | 0.32        | 1.12    | 4.48    | 8                | 32               | 35             | 23             | 76             | 26             |
| 7/8-8 | 0.48        | 2       | 8       | 9.5              | 37               | 37             | 25             | 86.4           | 29             |
| 10-8  | 0.95        | 3.15    | 12.6    | 12.5             | 49               | 46             | 31             | 104            | 39             |
| 13-8  | 1.8         | 5.3     | 21.2    | 16.5             | 56.5             | 56             | 42.5           | 128            | 47.5           |
| 16-8  | 3.4         | 8       | 32      | 21.5             | 70.5             | 60             | 54             | 150            | 56             |
| 20-8  | 6           | 12.5    | 50      | 24               | 77               | 79             | 58             | 180            | 59             |
| 22-8  | 10.4        | 15      | 60      | 26               | 91               | 101            | 62             | 213            | 72             |
| 26-8  | 14.5        | 21.2    | 84.8    | 30               | 117              | 115            | 75             | 250            | 101            |
| 32-8  | 27          | 31.5    | 126     | 35               | 150              | 140            | 88             | 317            | 124            |



## 1.1

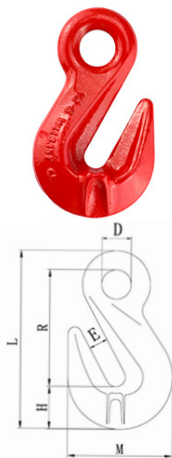
## G80 Chain Fitting

## G80 Eye Grab Hook



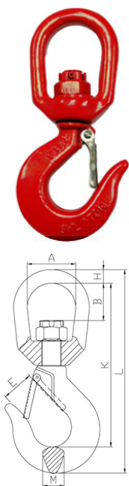
| ITEM  | WEIGHT (KG) | WLL (T) | B.L (T) | E±0.5 (mm) | D±1 (mm) | H±1 (mm) | K±2 (mm) | L±2 (mm) |
|-------|-------------|---------|---------|------------|----------|----------|----------|----------|
| 1/4"  | 0.13        | 1.2     | 4.8     | 8          | 13       | 19       | 54       | 81       |
| 9/32" | 0.27        | 2       | 8       | 9.5        | 15       | 23       | 64       | 98       |
| 3/8"  | 0.55        | 3.2     | 12.8    | 12.5       | 20       | 30       | 82       | 125      |
| 1/2"  | 1.3         | 5.4     | 21.6    | 17         | 25       | 42       | 106      | 165      |
| 5/8"  | 2.48        | 8.2     | 32.8    | 20         | 30       | 49       | 127      | 196.6    |
| 3/4"  | 3.8         | 12.8    | 51.2    | 23         | 34.5     | 56       | 152      | 231.6    |
| 7/8"  | 5.8         | 15.5    | 62      | 28.6       | 40.5     | 65.6     | 175      | 267.6    |

## G80 Eye Shortening Grab Hook



| ITEM  | WEIGHT (KG) | WLL (T) | B.L (T) | E±0.5 (mm) | φ±1 (mm) | H±1 (mm) | R±2 (mm) | L±2 (mm) | M±2 (mm) |
|-------|-------------|---------|---------|------------|----------|----------|----------|----------|----------|
| 6-8   | 0.14        | 1.12    | 4.48    | 8          | 13.5     | 17.9     | 51.4     | 75.3     | 45.5     |
| 7/8-8 | 0.245       | 2       | 8       | 10.8       | 18       | 20       | 61.5     | 91.2     | 53       |
| 10-8  | 0.65        | 3.15    | 12.6    | 13         | 20       | 29       | 80       | 122      | 71       |
| 13-8  | 1.39        | 5.3     | 21.2    | 16.5       | 26       | 42.8     | 99.7     | 158      | 90       |
| 16-8  | 2.2         | 8       | 32      | 20         | 30.5     | 47.7     | 104      | 169      | 113      |
| 20-8  | 4.6         | 12.5    | 50      | 25         | 37.5     | 56       | 140      | 219      | 143      |
| 22-8  | 8.2         | 15      | 60      | 28         | 44       | 68       | 165      | 259      | 160      |
| 26-8  | 9.8         | 21.2    | 84.8    | 30         | 44       | 77       | 188.8    | 298      | 171      |
| 32-8  | 19.4        | 31.5    | 126     | 38         | 57       | 95       | 228      | 361      | 229      |

## G80 Swivel Hook

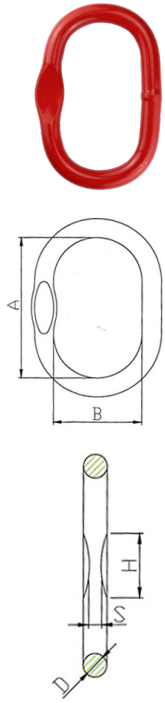


| ITEM | WEIGHT (KG) | WLL (T) | B.L (T) | A±1.2 (mm) | E±1.5 (mm) | B±2.5 (mm) | H±1 (mm) | K±2 (mm) | L±2.5 (mm) | M±1 (mm) |
|------|-------------|---------|---------|------------|------------|------------|----------|----------|------------|----------|
| 6-8  | 0.34        | 1.12    | 4.48    | 32         | 17         | 22.5       | 9        | 109      | 137        | 16       |
| 8-8  | 1.02        | 2       | 8       | 42         | 21.5       | 35         | 15.8     | 150      | 192        | 21       |
| 10-8 | 1.24        | 3.15    | 12.6    | 42.5       | 26         | 35         | 15.8     | 162.5    | 208.5      | 23       |
| 13-8 | 3.6         | 5.3     | 21.2    | 48         | 32.5       | 39         | 18       | 191      | 246        | 31       |
| 16-8 | 4.66        | 8       | 32      | 62         | 43         | 53         | 25       | 243.5    | 313        | 34       |
| 20-8 | 7.4         | 12.5    | 50      | 68         | 49.5       | 51         | 28.5     | 276.5    | 363.5      | 41.5     |
| 22-8 | 10.6        | 15      | 60      | 79         | 54.5       | 65         | 32       | 332      | 431        | 55.7     |
| 26-8 | 21.4        | 21.2    | 84.8    | 105        | 81         | 114        | 40       | 429.5    | 545.5      | 70       |
| 32-8 | 32          | 31.5    | 126     | 105        | 100        | 96         | 40       | 465.3    | 596        | 76.2     |

## 1.1

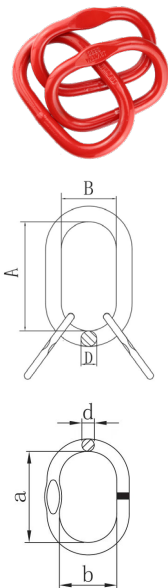
## G80 Chain Fitting

## G80 Master Link



| SIZE | WEIGHT (KG) | WLL (T) | B.L (T) | A (mm) | B (mm) | D (mm) | S (mm) | H (mm) |
|------|-------------|---------|---------|--------|--------|--------|--------|--------|
| 13B5 | 0.3         | 2.6     | 10.4    | 95     | 51     | 13     | 7      | 50     |
| 13B6 | 0.35        | 2.4     | 9.6     | 115    | 60     | 13     | 7      | 50     |
| 16B6 | 0.6         | 3.8     | 15.2    | 120    | 70     | 16     | 9      | 70     |
| 16B7 | 0.86        | 2.8     | 11.2    | 190    | 100    | 16     | 9      | 70     |
| 20B6 | 1.1         | 6.4     | 25.6    | 150    | 80     | 20     | 11     | 50     |
| 20B7 | 1.25        | 5.8     | 23.2    | 170    | 90     | 20     | 11     | 70     |
| 22B6 | 1.53        | 7.6     | 30.4    | 170    | 90     | 22     | 12     | 70     |
| 22B7 | 1.83        | 6.4     | 25.6    | 210    | 110    | 22     | 12     | 70     |
| 25B6 | 2.21        | 10      | 40      | 190    | 100    | 25     | 13     | 80     |
| 28B6 | 3.06        | 12.7    | 50.8    | 210    | 110    | 28     | 15     | 80     |
| 28B7 | 3.81        | 10.5    | 42      | 270    | 140    | 28     | 15     | 70     |
| 32B6 | 5.05        | 15.2    | 60.8    | 270    | 140    | 32     | 17     | 70     |
| 38B6 | 7.3         | 25.1    | 100.4   | 270    | 140    | 38     | 20     | 55     |
| 38B7 | 10.78       | 17      | 68      | 420    | 220    | 38     | 20     | 55     |
| 45B6 | 12.2        | 34      | 136     | 320    | 170    | 45     | 24     | 60     |
| 45B7 | 17.06       | 24.5    | 98      | 470    | 250    | 45     | 24     | 60     |
| 50B6 | 17.65       | 40      | 160     | 380    | 200    | 50     | ---    | ---    |
| 60B6 | 28.85       | 58      | 232     | 430    | 220    | 60     | ---    | ---    |
| 70B6 | 45.48       | 84      | 336     | 500    | 250    | 70     | ---    | ---    |

## G80 Master Link Assembly



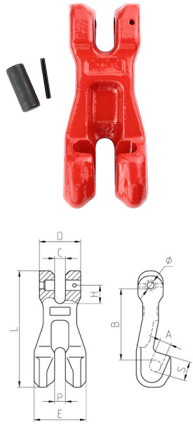
| SIZE | WEIGHT (KG) | WLL (T) | B.L (T) | A (mm) | B (mm) | D (mm) | a (mm) | b (mm) | d (mm) |
|------|-------------|---------|---------|--------|--------|--------|--------|--------|--------|
| Q16B | 1.19        | 3.8     | 15.2    | 120    | 70     | 16     | 95     | 51     | 13     |
| Q20B | 2.41        | 5.8     | 23.2    | 170    | 90     | 20     | 120    | 70     | 16     |
| Q22B | 3.77        | 7.6     | 30.4    | 170    | 90     | 22     | 150    | 80     | 20     |
| Q23B | 3.67        | 5.8     | 23.2    | 270    | 140    | 22     | 150    | 75     | 16     |
| Q25B | 4.45        | 10      | 40      | 190    | 100    | 25     | 150    | 80     | 20     |
| Q28B | 6.12        | 12.7    | 50.8    | 210    | 110    | 28     | 170    | 90     | 22     |
| Q32B | 9.47        | 15.2    | 60.8    | 270    | 140    | 32     | 190    | 100    | 25     |
| Q38B | 17.4        | 25      | 100     | 270    | 140    | 38     | 270    | 140    | 32     |
| Q45B | 26.76       | 34      | 136     | 320    | 170    | 45     | 270    | 140    | 38     |
| Q50B | 33.2        | 40      | 160     | 380    | 200    | 50     | 270    | 140    | 38     |
| Q60B | 66          | 58      | 232     | 430    | 220    | 60     | 380    | 200    | 50     |
| Q70B | 103         | 84      | 336     | 500    | 250    | 70     | 430    | 220    | 60     |



## 1.1

## G80 Chain Fitting

## G80 Clevis Chain Clutch

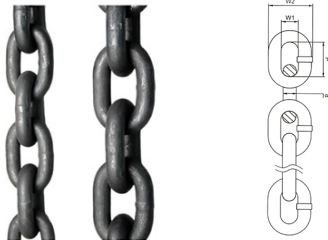


| ITEM    | WEIGHT (KG) | WLL (T) | B.L (T) | A±0.3 (mm) | B±2 (mm) | C±0.5 (mm) | D±1 (mm) | E±2 (mm) | H±1 (mm) | L±2 (mm) | φ±0.5 (mm) | P±0.5 (mm) | S±0.3 (mm) |
|---------|-------------|---------|---------|------------|----------|------------|----------|----------|----------|----------|------------|------------|------------|
| 6-8     | 0.18        | 1.12    | 4.48    | 8          | 44       | 7.5        | 30       | 32.8     | 11.8     | 73.5     | 7.8        | 7.5        | 12         |
| 7/8-8   | 0.45        | 2       | 8       | 10.5       | 61.7     | 9.5        | 36       | 45       | 15.7     | 101      | 9.2        | 9.5        | 17         |
| 10-8    | 0.93        | 3.15    | 12.6    | 12.4       | 92       | 13         | 48       | 55       | 20       | 138      | 13.2       | 13         | 28         |
| 13-8    | 1.88        | 5.3     | 21.2    | 16         | 115      | 16.5       | 59       | 75       | 24.5     | 177      | 16.2       | 16.5       | 34.5       |
| 16-8    | 3.5         | 8       | 32      | 19.5       | 143      | 21         | 73       | 93       | 30.5     | 220      | 20         | 21         | 40         |
| 18/20-8 | 4.43        | 12.5    | 50      | 23         | 152      | 23.5       | 81       | 102      | 36       | 238      | 24.3       | 23.5       | 46         |
| 22-8    | 8.05        | 15      | 60      | 26         | 195      | 25.5       | 98       | 118      | 42       | 295      | 28.1       | 25.5       | 57.5       |

## 1.2

## G80 Chain

## G80 EN818-2 Short Link Chain



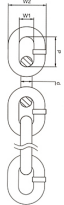
- 1 Material: Alloy steel.
- 2 Finish: Black treated or painted.
- 3 Manufacturer's test certificate can be supplied as required.
- 4 100% proof load tested and 100% calibrated.
- 5 Every meter is stamped with manufacturer's ID Number, Grade Number can be marked as required.

| SIZE (mm) | d (mm)  | P (mm) | W1 min. (mm) | W2 max. (mm) | WLL (t) | Proof Load (kN) | Breaking load (kN) | Weight (kg/m) |
|-----------|---------|--------|--------------|--------------|---------|-----------------|--------------------|---------------|
| 4x12      | 4±0.16  | 12±0.4 | 5.2          | 14.8         | 0.5     | 12.6            | 20.1               | 0.35          |
| 5x15      | 5±0.2   | 15±0.5 | 6.5          | 18.5         | 0.8     | 19.6            | 31.4               | 0.5           |
| 6x18      | 6±0.24  | 18±0.5 | 7.8          | 22.2         | 1.12    | 28.3            | 45.2               | 0.8           |
| 7x21      | 7±0.28  | 21±0.6 | 9.1          | 25.9         | 1.5     | 38.5            | 61.6               | 1.1           |
| 8x24      | 8±0.32  | 24±0.7 | 10.4         | 29.6         | 2       | 50.3            | 80.4               | 1.4           |
| 10x30     | 10±0.4  | 30±0.9 | 13           | 37           | 3.15    | 78.5            | 126                | 2.2           |
| 13x39     | 13±0.52 | 39±1.2 | 16.9         | 48.1         | 5.3     | 133             | 212                | 3.8           |
| 16x48     | 16±0.64 | 48±1.4 | 20.8         | 59.2         | 8       | 201             | 322                | 5.7           |
| 18x54     | 18±0.9  | 54±1.6 | 23.4         | 66.6         | 10      | 254             | 407                | 7.3           |
| 19x57     | 19±1    | 57±1.7 | 24.7         | 70.3         | 11.2    | 284             | 454                | 8.1           |
| 20x60     | 20±1    | 60±1.8 | 26           | 74           | 12.5    | 314             | 503                | 9             |
| 22x66     | 22±1.1  | 66±2   | 28.6         | 81.4         | 15      | 380             | 608                | 10.9          |
| 23x69     | 23±1.2  | 69±2.1 | 29.9         | 85.1         | 16      | 415             | 665                | 12            |
| 25x75     | 25±1.3  | 75±2.3 | 32.5         | 92.5         | 20      | 491             | 785                | 14.1          |
| 26x78     | 26±1.3  | 78±2.3 | 33.8         | 96.2         | 21.2    | 531             | 849                | 15.2          |

## 1.2

## G80 Chain

## G80 Long Link Chain

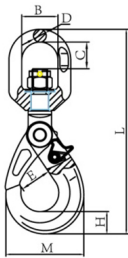


| SIZE (mm) | d (mm) | P (mm) | W1 min. (mm) | W2 max. (mm) | Proof Load(kN) | Breaking load(kN) | Weight (kg/m) |
|-----------|--------|--------|--------------|--------------|----------------|-------------------|---------------|
| 6x35      | 6      | 35     | 10           | 22           | 22             | 44                | 0.64          |
| 9x53      | 9      | 53     | 15           | 33           | 49             | 98                | 1.42          |
| 11x64     | 11     | 64     | 18           | 40           | 77             | 153               | 2.18          |
| 13x80     | 13     | 80     | 22           | 51           | 106            | 212               | 3.01          |
| 16x100    | 16     | 100    | 26           | 66           | 161            | 322               | 4.45          |
| 19x100    | 19     | 100    | 27           | 68           | 227            | 454               | 6.5           |
| 22x120    | 22     | 120    | 37           | 84           | 304            | 608               | 8.8           |

## 1.3

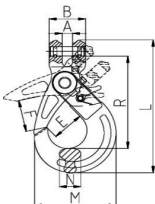
## G100 Chain Fitting

## G100 Swivel Self-locking Hook



| ITEM  | WEIGHT (KG) | WLL (T) | B.L (T) | B±1 (mm) | C±1 (mm) | D±0.5 (mm) | E±1 (mm) | H±1 (mm) | M±2 (mm) | L±3 (mm) |
|-------|-------------|---------|---------|----------|----------|------------|----------|----------|----------|----------|
| 6-10  | 0.6         | 1.4     | 5.6     | 32.5     | 23       | 11.5       | 28       | 20       | 70       | 184      |
| 8-10  | 1.1         | 2.5     | 10      | 36       | 28.5     | 13         | 35.5     | 26       | 90       | 226      |
| 10-10 | 2           | 4       | 16      | 42       | 35       | 15.5       | 45       | 30       | 108      | 269      |
| 13-10 | 4           | 6.7     | 26.8    | 50       | 41       | 17         | 53.6     | 43       | 138.5    | 327      |
| 16-10 | 6.8         | 10      | 40      | 61       | 58       | 21.5       | 62       | 50.5     | 170      | 413      |
| 20-10 | 12.5        | 16      | 64      | 72       | 63       | 26         | 76.5     | 62       | 192.5    | 460      |
| 22-10 | 17.1        | 19      | 76      | 97       | 98       | 33         | 80       | 65       | 205      | 566      |

## G100 Clevis Self-locking Hook

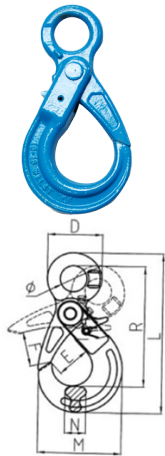


| ITEM  | WEIGHT (KG) | WLL (T) | B.L (T) | A±0.5 (mm) | B±1 (mm) | E±1 (mm) | F±1 (mm) | R±2 (mm) | M±2 (mm) | N±1 (mm) | L±3 (mm) |
|-------|-------------|---------|---------|------------|----------|----------|----------|----------|----------|----------|----------|
| 6-10  | 0.5         | 1.4     | 5.6     | 8          | 32       | 28       | 31       | 96       | 70       | 15       | 131      |
| 8-10  | 0.9         | 2.5     | 10      | 9.5        | 36       | 36       | 40       | 121      | 90       | 20       | 163      |
| 10-10 | 1.6         | 4       | 16      | 12         | 46       | 45       | 50       | 144      | 109      | 26       | 196.5    |
| 13-10 | 2.9         | 6.7     | 26.8    | 15         | 59       | 53.5     | 66       | 182      | 138.5    | 32.5     | 251      |
| 16-10 | 5.8         | 10      | 40      | 18.5       | 70       | 62       | 75       | 220      | 170.5    | 38       | 303      |
| 20-10 | 8.6         | 16      | 64      | 25         | 85       | 76.5     | 80       | 235      | 192.5    | 50       | 337      |
| 22-10 | 12.1        | 19      | 76      | 25.5       | 98       | 80       | 104.6    | 271      | 205      | 52       | 386      |

## 1.3

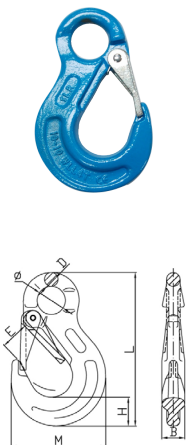
## G100 Chain Fitting

## G100 Eye Self-locking Hook



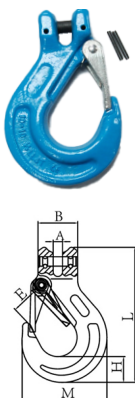
| ITEM  | WEIGHT (KG) | WLL (T) | B.L (T) | φ (mm) | D±1 (mm) | E±1 (mm) | F±1 (mm) | R±2 (mm) | M±2 (mm) | N±1 (mm) | L±3 (mm) |
|-------|-------------|---------|---------|--------|----------|----------|----------|----------|----------|----------|----------|
| 6-10  | 0.5         | 1.4     | 5.6     | 21     | 43       | 28       | 31       | 110      | 70       | 15       | 141      |
| 7-10  | 0.72        | 1.9     | 7.6     | 27     | 52       | 31       | 34       | 127      | 81       | 12       | 162      |
| 8-10  | 0.9         | 2.5     | 10      | 27     | 52       | 36       | 40       | 137      | 90       | 20       | 175      |
| 10-10 | 1.5         | 4       | 16      | 34.5   | 64.5     | 45       | 50       | 170      | 108      | 26       | 212.5    |
| 13-10 | 2.7         | 6.7     | 26.8    | 40     | 80       | 53.6     | 66       | 209      | 138.5    | 32.5     | 270      |
| 16-10 | 5.7         | 10      | 40      | 50     | 104      | 61       | 75       | 256      | 170.5    | 38       | 333      |
| 20-10 | 7.9         | 16      | 64      | 60     | 120      | 76.5     | 80       | 277      | 192.5    | 50       | 369      |
| 22-10 | 11.2        | 19      | 76      | 70     | 134      | 80       | 104.6    | 319      | 205      | 52       | 417      |

## G100 European Type Eye Sling Hook



| ITEM  | WEIGHT (KG) | WLL (T) | B.L (T) | B±1 (mm) | D±1 (mm) | E±2 (mm) | H±1 (mm) | φ±1 (mm) | M±2 (mm) | L±2.5 (mm) |
|-------|-------------|---------|---------|----------|----------|----------|----------|----------|----------|------------|
| 6-10  | 0.32        | 1.4     | 5.6     | 16.5     | 10       | 18.5     | 21       | 20.5     | 68       | 111        |
| 7-10  | 0.4         | 1.9     | 7.6     | 15       | 11       | 25.5     | 26       | 25       | 86.9     | 137        |
| 8-10  | 0.6         | 2.5     | 10      | 19       | 11       | 25       | 27.5     | 25       | 87.6     | 137        |
| 10-10 | 1.2         | 4       | 16      | 26       | 16       | 29.5     | 32       | 35       | 106.4    | 171.5      |
| 13-10 | 2.2         | 6.7     | 26.8    | 33       | 19       | 38       | 43.5     | 43       | 134      | 219        |
| 16-10 | 3.5         | 10      | 40      | 40       | 24.5     | 46       | 50       | 51       | 158      | 260        |
| 20-10 | 6.2         | 16      | 64      | 48       | 27       | 52       | 56       | 55       | 190      | 298        |
| 22-10 | 11.5        | 19      | 76      | 50       | 29       | 66       | 62       | 60       | 214      | 330        |
| 26-10 | 12.2        | 26.5    | 106     | 60       | 35       | 73       | 75       | 70       | 245      | 376        |
| 32-10 | 17.5        | 39.3    | 157.2   | 71       | 39       | 87       | 89       | 81.5     | 270      | 458        |

## G100 European Type Clevis Sling Hook



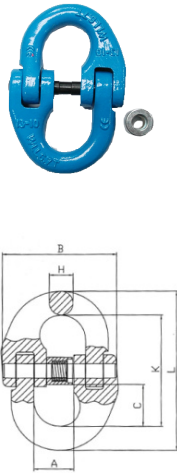
| ITEM  | WEIGHT (KG) | WLL (T) | B.L (T) | A±0.5 (mm) | B±1 (mm) | E±1.5 (mm) | H±1 (mm) | M±2 (mm) | L±2.5 (mm) |
|-------|-------------|---------|---------|------------|----------|------------|----------|----------|------------|
| 6-10  | 0.33        | 1.4     | 5.6     | 7.5        | 32       | 18.5       | 21       | 68.5     | 109        |
| 8-10  | 0.7         | 2.5     | 10      | 9.5        | 37       | 25         | 27.5     | 88       | 134        |
| 10-10 | 1.3         | 4       | 16      | 12         | 48       | 28         | 33.5     | 105.5    | 161.5      |
| 13-10 | 2.3         | 6.7     | 26.8    | 15         | 59       | 38         | 42       | 134      | 203        |
| 16-10 | 3.6         | 10      | 40      | 18.5       | 70       | 44         | 50       | 160.5    | 248        |
| 20-10 | 7           | 16      | 64      | 25         | 85       | 52         | 56       | 190.5    | 297        |
| 22-10 | 12.1        | 19      | 76      | 27         | 100      | 66         | 62       | 214.5    | 326        |



## 1.3

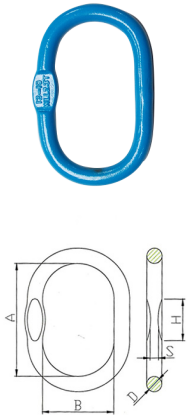
## G100 Chain Fitting

## G100 European Type Connecting Link



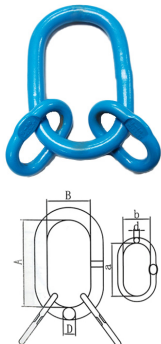
| ITEM   | WEIGHT (KG) | WLL (T) | B.L (T) | H±1 (mm) | A±1.5 (mm) | B±1.5 (mm) | C±1.5 (mm) | K±2 (mm) | L±3 (mm) |
|--------|-------------|---------|---------|----------|------------|------------|------------|----------|----------|
| 6-10   | 0.11        | 1.4     | 5.6     | 7        | 14         | 40         | 16.5       | 44.5     | 62.1     |
| 7-10   | 0.17        | 1.9     | 7.6     | 8.2      | 18.5       | 56         | 22.5       | 60       | 80       |
| 7/8-10 | 0.16        | 2.5     | 10      | 8.5      | 18.5       | 54.2       | 22         | 59.7     | 81.7     |
| 8-10   | 0.18        | 2.5     | 10      | 10       | 18.5       | 53         | 25         | 63.1     | 84.1     |
| 10-10  | 0.34        | 4       | 16      | 12.6     | 23         | 64         | 27.8       | 71.6     | 96.8     |
| 13-10  | 0.68        | 6.7     | 26.8    | 16.5     | 28         | 81         | 36.9       | 93.4     | 126.4    |
| 16-10  | 1.22        | 10      | 40      | 20       | 33.5       | 103        | 40.2       | 105      | 145      |
| 20-10  | 2.13        | 16      | 64      | 25       | 42         | 119.5      | 47.5       | 125      | 175      |
| 22-10  | 3           | 19      | 76      | 27       | 48         | 142        | 53         | 139      | 193      |
| 26-10  | 5.2         | 26.5    | 106     | 32       | 61         | 169        | 63         | 164      | 229      |
| 32-10  | 9.55        | 39.3    | 157.2   | 40       | 80         | 218        | 78         | 199      | 279      |

## G100 Master Link



| ITEM    | WEIGHT (KG) | WLL (T) | A (mm) | B (mm) | D (mm) | SxH       |
|---------|-------------|---------|--------|--------|--------|-----------|
| 06-10   | 0.23        | 1.4     | 100    | 60     | 11±0.5 | 6+0.5x22  |
| 86-10   | 0.4         | 2.5     | 120    | 70     | 13±1   | 7+0.5x25  |
| 108-10  | 0.7         | 4       | 140    | 80     | 17±1   | 8+0.5x28  |
| 1310-10 | 1.5         | 7.5     | 160    | 95     | 22±1   | 11±0.5x35 |
| 16-10   | 2.2         | 10      | 190    | 110    | 25±1   | 13±0.5x43 |
| 1613-10 | 2.51        | 12.5    | 180    | 100    | 27+1   | 14±0.5x46 |
| 2016-10 | 5.1         | 17      | 240    | 140    | 32+1   | 17±0.5x55 |
| 2220-10 | 7.2         | 25      | 250    | 150    | 38+1-2 | 21±0.5x65 |
| 2622-10 | 8.3         | 26.5    | 250    | 150    | 41+1-2 | 23±0.5x73 |
| 3226-10 | 11.8        | 37      | 300    | 180    | 45+1-2 | 27±0.5x85 |

## G100 Master Link Assembly



| ITEM  | WEIGHT (KG) | WLL (T) | B.L (T) | A (mm) | B (mm) | D (mm) | a (mm) | b (mm) | d (mm) |
|-------|-------------|---------|---------|--------|--------|--------|--------|--------|--------|
| 6-10  | 1.8         | 3.5     | 14      | 150±5  | 90±4   | 19±1.5 | 120±5  | 70±4   | 14±1.5 |
| 8-10  | 3           | 5       | 20      | 160±5  | 95±4   | 22±1.5 | 140±5  | 80±4   | 17±1.5 |
| 10-10 | 6.5         | 11.5    | 46      | 200±5  | 120±5  | 30±1.5 | 160±5  | 95±4   | 22±1.5 |
| 13-10 | 15          | 17      | 68      | 250±6  | 150±5  | 40±2   | 190±5  | 110±5  | 25±1.5 |
| 16-10 | 23          | 28      | 112     | 300±6  | 200±5  | 50±2   | 200±5  | 120±5  | 32±2   |

## 1.4

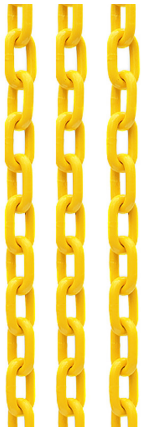
## G100 Chain

## G100 EN818-2 Short Link Chain



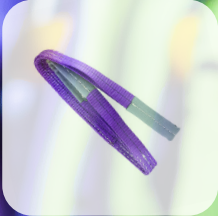
| Diameter (mm) | Tolerance (+/- mm) | Inside Length (mm) | Min. Inside Width (mm) | Max. Outside Width (mm) | Weight (kg/m) | WLL (kn) | Proof Load (kn) | MBL (kn) |
|---------------|--------------------|--------------------|------------------------|-------------------------|---------------|----------|-----------------|----------|
| 6             | 0.24               | 18.00              | 7.80                   | 22.20                   | 0.8           | 14       | 35              | 56       |
| 7             | 0.28               | 21.00              | 9.10                   | 25.90                   | 1.1           | 19       | 45.6            | 76       |
| 8             | 0.32               | 24.00              | 10.40                  | 29.60                   | 1.5           | 25       | 62              | 100      |
| 10            | 0.40               | 30.00              | 13.00                  | 37.00                   | 2.4           | 39       | 98              | 157      |
| 13            | 0.52               | 39.00              | 16.90                  | 48.10                   | 4.0           | 66       | 165             | 265      |
| 16            | 0.64               | 48.00              | 20.80                  | 59.20                   | 6.0           | 100      | 251             | 402      |
| 18            | 0.90               | 54.00              | 23.40                  | 66.60                   | 7.5           | 127      | 317             | 508      |
| 19            | 0.90               | 57.00              | 24.70                  | 70.3                    | 8.4           | 140      | 337             | 562      |
| 20            | 1.00               | 60.00              | 26.00                  | 74.00                   | 9.3           | 157      | 392             | 628      |
| 22            | 1.10               | 66.00              | 28.60                  | 81.40                   | 11            | 190      | 475             | 760      |

## G100 Long Link Chain



| Diameter (mm) | Inner Length (mm) | Inside min. Width (mm) | Outside max. Width (mm) | Weight (kg/m) | Min. Breaking Load (kn) |
|---------------|-------------------|------------------------|-------------------------|---------------|-------------------------|
| 9.00          | 53                | 15                     | 35                      | 1.55          | 127                     |
| 11.00         | 64                | 18                     | 43                      | 2.4           | 189                     |
| 13.00         | 80                | 22                     | 51                      | 3.3           | 265                     |
| 16.00         | 100               | 26                     | 61                      | 4.8           | 401                     |
| 19.00         | 100               | 27                     | 68                      | 7.1           | 562                     |
| 22.00         | 120               | 32                     | 84                      | 9.5           | 760                     |





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# POLYESTER SLING



## 2.1

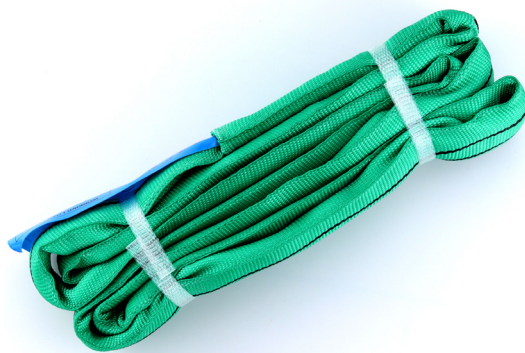
## Polyester Sling

### Ratchet Cargo Lashing



| Width of Strap | 25mm                                | 28mm  | 35mm | 35mm | 50mm | 50mm | 75mm |
|----------------|-------------------------------------|-------|------|------|------|------|------|
| Breaking force | 1T                                  | 1.5T  | 2T   | 3T   | 4T   | 5T   | 10T  |
| Load capacity  | 0.5T                                | 0.75T | 1T   | 1.5T | 2T   | 2.5T | 5T   |
| Length         | According to customer's requirement |       |      |      |      |      |      |

### Round Sling



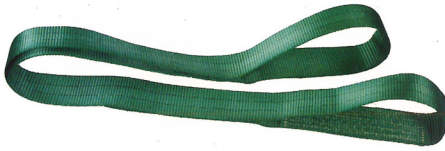
- ① 100% high tensile polyester material.
- ② According to EN1492-1: 2000.
- ③ Safety factor 7: 1.
- ④ Each stripe is equal to 1ton capacity.
- ⑤ Low elongation.
- ⑥ Flexible and wear resistant.
- ⑦ Length available: 1m up to 10m.
- ⑧ Single ply or double plies.

| Colour | Colourcoded according to EN 1492-1 | Working Load Limit with 1 webbing sling |             |         |        |         |           |         | Working Load Limit with 2 webbing sling |                       |                       |                     |
|--------|------------------------------------|-----------------------------------------|-------------|---------|--------|---------|-----------|---------|-----------------------------------------|-----------------------|-----------------------|---------------------|
|        |                                    | Straight lift                           | Choked lift | $\beta$ |        |         |           |         | Straight lift up to 45°                 | Choked lift up to 45° | Straight lift 45°-60° | Choked lift 45°-60° |
|        |                                    |                                         |             | 0°-7°   | 7°-45° | 45°-60° | up to 45° | 45°-60° |                                         |                       |                       |                     |
|        |                                    |                                         |             |         |        |         |           |         |                                         |                       |                       |                     |
|        |                                    | 1.0                                     | 0.8         | 2.0     | 1.4    | 1.0     | 0.7       | 0.5     | 1.4                                     | 1.12                  | 1.0                   | 0.8                 |
| Purple | WLL1T                              | 1.000                                   | 0.800       | 2.000   | 1.400  | 1.000   | 0.700     | 0.500   | 1.400                                   | 1.120                 | 1.000                 | 0.800               |
| Green  | WLL2T                              | 2.000                                   | 1.600       | 4.000   | 2.800  | 2.000   | 1.400     | 1.000   | 2.800                                   | 2.240                 | 2.000                 | 1.600               |
| Yellow | WLL3T                              | 3.000                                   | 2.400       | 6.000   | 4.200  | 3.000   | 2.100     | 1.500   | 4.200                                   | 3.360                 | 3.000                 | 2.400               |
| Grey   | WLL4T                              | 4.000                                   | 3.200       | 8.000   | 5.600  | 4.000   | 2.800     | 2.000   | 5.600                                   | 4.480                 | 4.000                 | 3.200               |
| Red    | WLL5T                              | 5.000                                   | 4.000       | 10.000  | 7.000  | 5.000   | 3.500     | 2.500   | 7.000                                   | 5.600                 | 5.000                 | 4.000               |
| Brown  | WLL6T                              | 6.000                                   | 4.800       | 12.000  | 8.400  | 6.000   | 4.200     | 3.000   | 8.400                                   | 6.720                 | 6.000                 | 4.800               |
| Blue   | WLL8T                              | 8.000                                   | 6.400       | 16.000  | 11.200 | 8.000   | 5.800     | 4.000   | 11.200                                  | 8.960                 | 8.000                 | 6.400               |
| Orange | WLL10T                             | 10.000                                  | 8.000       | 20.000  | 14.000 | 10.000  | 7.000     | 5.000   | 14.000                                  | 11.200                | 10.000                | 8.000               |
| Orange | WLL12T                             | 12.000                                  | 9.600       | 24.000  | 16.800 | 12.000  | 8.400     | 6.000   | 16.800                                  | 13.440                | 12.000                | 9.600               |

# 2.1

## Polyester Sling

### Endless Webbing Sling



- ① 100% high tensile polyester material.
- ② Safety factor available 2: 1, 5: 1, 6: 1, 7: 1.
- ③ Low elongation.
- ④ Wear resistant.
- ⑤ Length available: 1m up to 10m.
- ⑥ Single ply or double plies.

| Webbing width (mm) single ply | Colourcoded according to EN 1492-1 | Working Load Limit with 1 webbing sling |             |         |        |         |           |         | Working Load Limit with 2 webbing sling |                       |                       |                     |
|-------------------------------|------------------------------------|-----------------------------------------|-------------|---------|--------|---------|-----------|---------|-----------------------------------------|-----------------------|-----------------------|---------------------|
|                               |                                    | Straight lift                           | Choked lift | $\beta$ |        |         |           |         | Straight lift up to 45°                 | Choked lift up to 45° | Straight lift 45°-60° | Choked lift 45°-60° |
|                               |                                    |                                         |             | 0°-7°   | 7°-45° | 45°-60° | up to 45° | 45°-60° |                                         |                       |                       |                     |
|                               |                                    |                                         |             |         |        |         |           |         |                                         |                       |                       |                     |
|                               |                                    | 1.0                                     | 0.8         | 2.0     | 1.4    | 1.0     | 0.7       | 0.5     | 1.4                                     | 1.12                  | 1.0                   | 0.8                 |
| 30                            | WLL1T                              | 1.000                                   | 0.800       | 2.000   | 1.400  | 1.000   | 0.700     | 0.500   | 1.400                                   | 1.120                 | 1.000                 | 0.800               |
| 60                            | WLL2T                              | 2.000                                   | 1.600       | 4.000   | 2.800  | 2.000   | 1.400     | 1.000   | 2.800                                   | 2.240                 | 2.000                 | 1.000               |
| 90                            | WLL3T                              | 3.000                                   | 2.400       | 6.000   | 4.200  | 3.000   | 2.100     | 1.500   | 4.200                                   | 3.360                 | 3.000                 | 2.400               |
| 120                           | WLL4T                              | 4.000                                   | 3.200       | 8.000   | 5.600  | 4.000   | 2.800     | 2.000   | 5.600                                   | 4.480                 | 4.000                 | 3.200               |
| 150                           | WLL5T                              | 5.000                                   | 4.000       | 10.000  | 7.000  | 5.000   | 3.500     | 2.500   | 7.000                                   | 5.600                 | 5.000                 | 4.000               |
| 180                           | WLL6T                              | 6.000                                   | 4.800       | 12.000  | 8.400  | 6.000   | 4.200     | 3.000   | 8.400                                   | 6.700                 | 6.000                 | 4.800               |
| 240                           | WLL8T                              | 8.000                                   | 6.400       | 16.000  | 11.200 | 8.000   | 5.600     | 4.000   | 11.200                                  | 8.960                 | 8.000                 | 6.400               |
| 300                           | WLL10T                             | 10.000                                  | 8.000       | 20.000  | 14.000 | 10.000  | 5.600     | 4.000   | 14.000                                  | 11.200                | 10.000                | 8.000               |

### Flat Webbing Sling



- ① 100% high tensile polyester material.
- ② According to EN1492-1: 2000.
- ③ With reinforced lifting eyes.
- ④ Safety factor 7: 1.
- ⑤ Low elongation.
- ⑥ Wear resistant.
- ⑦ Length available: 1m up to 10m.
- ⑧ Single ply or double plies.

| Webbing Width (mm) | Colourcoded According to EN 1492-1 | Working Load Limit with 1 webbing sling |             |         |        |         | Working Load Limit with 2 webbing sling |                       |                       |                     |
|--------------------|------------------------------------|-----------------------------------------|-------------|---------|--------|---------|-----------------------------------------|-----------------------|-----------------------|---------------------|
|                    |                                    | Straight lift                           | Choked lift | $\beta$ |        |         | Straight lift up to 45°                 | Choked lift up to 45° | Straight lift 45°-60° | Choked lift 45°-60° |
|                    |                                    |                                         |             | 0°-7°   | 7°-45° | 45°-60° |                                         |                       |                       |                     |
|                    |                                    |                                         |             |         |        |         |                                         |                       |                       |                     |
|                    |                                    | 1.0                                     | 0.8         | 2.0     | 1.4    | 1.0     | 1.4                                     | 1.12                  | 1.0                   | 0.8                 |
| 30                 | WLL1T                              | 1.000                                   | 0.800       | 2.000   | 1.400  | 1.000   | 1.400                                   | 1.120                 | 1.000                 | 0.800               |
| 60                 | WLL2T                              | 2.000                                   | 1.600       | 4.000   | 2.800  | 2.000   | 2.800                                   | 2.240                 | 2.000                 | 1.600               |
| 90                 | WLL3T                              | 3.000                                   | 2.400       | 6.000   | 4.200  | 3.000   | 4.200                                   | 3.360                 | 3.000                 | 2.400               |
| 120                | WLL4T                              | 4.000                                   | 3.200       | 8.000   | 5.600  | 4.000   | 5.600                                   | 4.480                 | 4.000                 | 3.200               |
| 150                | WLL5T                              | 5.000                                   | 4.000       | 10.000  | 7.000  | 5.000   | 7.000                                   | 5.600                 | 5.000                 | 4.000               |
| 180                | WLL6T                              | 6.000                                   | 4.800       | 12.000  | 8.400  | 6.000   | 8.400                                   | 6.720                 | 6.000                 | 4.800               |
| 240                | WLL8T                              | 8.000                                   | 6.400       | 16.000  | 11.200 | 8.000   | 11.200                                  | 8.960                 | 8.000                 | 6.400               |
| 300                | WLL10T                             | 10.000                                  | 8.000       | 20.000  | 14.000 | 10.000  | 14.000                                  | 11.200                | 10.000                | 8.000               |

# 2.1

## Polyester Sling

### High Tensile Round Sling



| Color  | Code    | WLL  | Diameter | Min. Length | Max. Length |
|--------|---------|------|----------|-------------|-------------|
|        |         | tons | mm       | m           | m           |
| Purple | H-1T    | 1.0  | 14       | 0.5         | 80          |
| Green  | H-2T    | 2.0  | 18       | 0.5         | 80          |
| Yellow | H-3T    | 3.0  | 21       | 0.5         | 80          |
| Grey   | H-4T    | 4.0  | 24       | 0.5         | 80          |
| Red    | H-5T    | 5.0  | 27       | 0.5         | 80          |
| Brown  | H-6T    | 6.0  | 29       | 1.0         | 80          |
| Blue   | H-8T    | 8.0  | 32       | 1.0         | 80          |
| Orange | H-10T   | 10   | 36       | 2.0         | 80          |
| Orange | H-12T   | 12   | 39       | 2.0         | 80          |
| Orange | H-15T   | 15   | 44       | 2.0         | 80          |
| Orange | H-20T   | 20   | 52       | 2.0         | 80          |
| Orange | H-30T   | 30   | 64       | 2.0         | 80          |
| Orange | H-50T   | 50   | 84       | 2.0         | 80          |
| Orange | H-100T  | 100  | 120      | 2.0         | 80          |
| Orange | H-200T  | 200  | 140      | 2.0         | 80          |
| Orange | H-250T  | 250  | 175      | 2.0         | 80          |
| Orange | H-300T  | 300  | 196      | 2.0         | 80          |
| Orange | H-500T  | 500  | 245      | 2.5         | 80          |
| Orange | H-800T  | 800  | 298      | 2.5         | 80          |
| Orange | H-1000T | 1000 | 332      | 3.0         | 80          |
| Orange | H-2000T | 2000 | 470      | 3.0         | 80          |

### Loop Round Sling



| Color  | Code | WLL  | Diameter | Min. Length | Max. Length |
|--------|------|------|----------|-------------|-------------|
|        |      | tons | mm       | m           | m           |
| Purple | 1T   | 1    | 30       | 1.0         | 80          |
| Green  | 2T   | 2    | 40       | 1.1         | 80          |
| Yellow | 3T   | 3    | 45       | 1.2         | 80          |
| Grey   | 4T   | 4    | 52       | 1.3         | 80          |
| Red    | 5T   | 5    | 58       | 1.5         | 80          |
| Brown  | 6T   | 6    | 61       | 1.6         | 80          |
| Blue   | 8T   | 8    | 69       | 1.7         | 80          |
| Orange | 10T  | 10   | 76       | 2.0         | 80          |
| Orange | 12T  | 12   | 85       | 2.0         | 80          |
| Orange | 15T  | 15   | 96       | 2.0         | 80          |
| Orange | 20T  | 20   | 112      | 2.5         | 80          |
| Orange | 30T  | 30   | 138      | 2.5         | 80          |
| Orange | 50T  | 50   | 192      | 2.5         | 80          |
| Orange | 100T | 100  | 200      | 3.0         | 80          |
| Orange | 300T | 300  | 450      | 4.0         | 80          |
| Orange | 500T | 500  | 500      | 4.0         | 80          |



## 2.1

## Polyester Sling

### Three-Layer Webbing Sling



| Color  | Code | WLL  | Approx. Width(mm) |     |     | Min. Length | Max. Length |
|--------|------|------|-------------------|-----|-----|-------------|-------------|
|        |      | tons | 6:1               | 7:1 | 8:1 | m           | m           |
| Purple | 1.5T | 1.5  | 25                | 30  | 50  | 1.1         | 100         |
| Green  | 3T   | 3.0  | 50                | 60  | 65  | 1.2         | 100         |
| Yellow | 4.5T | 4.5  | 75                | 90  | 90  | 1.3         | 100         |
| Grey   | 6T   | 6.0  | 100               | 120 | 120 | 1.5         | 100         |
| Red    | 7.5T | 7.5  | 125               | 150 | 150 | 1.6         | 100         |
| Brown  | 9T   | 9.0  | 150               | 180 | 200 | 1.7         | 100         |
| Blue   | 12T  | 12   | 200               | 240 | 240 | 1.8         | 100         |
| Orange | 15T  | 15   | 250               | 300 | -   | 1.8         | 100         |
| Orange | 18T  | 18   | 300               | -   | -   | 2.0         | 100         |

### Four-Layer Webbing Sling



| Color  | Code | WLL  | Approx. Width(mm) |     |     | Min. Length | Max. Length |
|--------|------|------|-------------------|-----|-----|-------------|-------------|
|        |      | tons | 6:1               | 7:1 | 8:1 | m           | m           |
| Purple | 2T   | 2.0  | 25                | 30  | 50  | 1.1         | 100         |
| Green  | 4T   | 4.0  | 50                | 60  | 65  | 1.3         | 100         |
| Yellow | 6T   | 6.0  | 75                | 90  | 90  | 1.6         | 100         |
| Grey   | 8T   | 8.0  | 100               | 120 | 120 | 1.7         | 100         |
| Red    | 10T  | 10   | 125               | 150 | 150 | 1.9         | 100         |
| Brown  | 12T  | 12   | 150               | 180 | 200 | 2.0         | 100         |
| Blue   | 16T  | 16   | 200               | 240 | 240 | 2.0         | 100         |
| Orange | 20T  | 20   | 250               | 300 | -   | 2.2         | 100         |
| Orange | 24T  | 24   | 300               | -   | -   | 2.3         | 100         |









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# STEEL WIRE ROPE AND RIGGING COMPONENTS



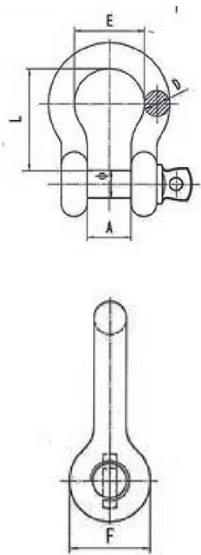
# 3.1

## Shackle

### Drop Forged US Type Screw Pin Bow Shackle Conform to Federal Spec. RR-C-271D

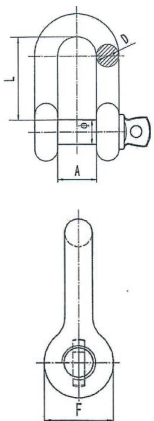


- ① Forged-Quenched and Tempered.
- ② Surface: Hot dip galvanized body & painted pin.
- ③ Proof Load is 2 times of WLL, minimum breaking load is 6 times of WLL.
- ④ Marking: SIZE, CE, WLL and other marking according to requirement.
- ⑤ Capacity: 1/3t to 150t, shackles 85T and larger with alloy body and pin.
- ⑥ Square head pin shackle available.



| Size   | WLL(T) | A        | L         | $\Phi$    | D             | E          | F              |
|--------|--------|----------|-----------|-----------|---------------|------------|----------------|
| 3/8    | 1      | 16.7±1.5 | 36.6±3.3  | 11.1±0.5  | 9.5+1.0/-0.3  | 26.0±1.3   | 23.1+1.0/-0.5  |
| 7/16   | 1.5    | 18.9±1.5 | 43.0±3.3  | 12.7±0.6  | 11.1+1.0/-0.3 | 29.5±1.5   | 26.9+1.2/-0.5  |
| 1/2    | 2      | 20.6±1.5 | 47.8±3.3  | 15.9±0.8  | 12.7+1.2/-0.5 | 33.0±1.65  | 32.0+2.0/-0.8  |
| 5/8    | 3.25   | 27.0±1.5 | 60.5±3.2  | 19.1±0.96 | 15.9+1.2/-0.5 | 43.0±2.15  | 38.1+2.2/-0.8  |
| 3/4    | 4.75   | 31.8±1.5 | 71.4±6.4  | 22.2±1.1  | 19.1+1.5/-0.5 | 51.0±2.55  | 46.0+2.3/-1.0  |
| 7/8    | 6.5    | 36.5±2   | 84.1±6.4  | 25.4±1.27 | 22.2+2.0/-0.5 | 58.0±2.9   | 53.0+3.0/-1.0  |
| 1      | 8.5    | 42.9±2.5 | 95.3±6.4  | 28.6±1.43 | 25.4+2.5/-0.5 | 68.0±3.4   | 60.5+3.5/-1.0  |
| 1.1/8  | 9.5    | 46.0±2.5 | 108.0±6.4 | 32.0±1.6  | 28.6+2.5/-0.5 | 74.0±3.7   | 68.5+4/-1.5    |
| 1.1/4  | 12     | 51.6±3.3 | 119.2±6.4 | 35.0±1.75 | 31.8+2.5/-0.5 | 82.0±4.1   | 76.0+4.0/-1.5  |
| 1.3/8  | 13.5   | 57.2±3.3 | 133.5±6.4 | 38.1±1.9  | 34.9+3/-0.8   | 89.0±4.6   | 84.0+5.0/-2    |
| 1.1/2  | 17     | 60.3±3.3 | 146.1±6.4 | 42.0±2.1  | 38.1+3/-0.8   | 98.0±4.9   | 92.0+5.0/-2.0  |
| 1.3/4  | 25     | 73.0±3.3 | 177.8±6.4 | 50.8±2.5  | 44.5+3/-1     | 127.0±6.35 | 106.0+6.0/-3.0 |
| 2      | 35     | 82.6±3.3 | 197.0±6.4 | 57.2±2.8  | 50.8+3/-1     | 146.0±7.3  | 122.0+6.0/-3.0 |
| 2.1/2" | 55     | 105±6.4  | 266.7±6.4 | 70.0±3.5  | 63.5+4/-2     | 184.0±9.2  | 145.0+10/-3    |

### Drop Forged US Type Screw Pin Dee Shackle Conform to Federal Spec. RR-C-271D

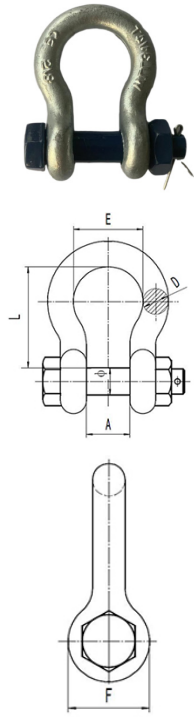


| Size   | WLL(T) | A         | L         | $\Phi$    | D             | F              |
|--------|--------|-----------|-----------|-----------|---------------|----------------|
| 3/8    | 1      | 16.7±1.5  | 31.8±3.3  | 11.1±0.55 | 9.5+1.0/-0.3  | 23.1+1.0/-0.5  |
| 7/16   | 1.5    | 18.9±1.5  | 36.6±3.3  | 12.7±0.6  | 11.1+1.0/-0.3 | 26.9+1.2/-0.5  |
| 1/2    | 2      | 20.6±1.5  | 41.4±3.3  | 15.9±0.8  | 12.7+1.2/-0.5 | 32.0+2.0/-0.8  |
| 5/8    | 3.25   | 27.0±1.5  | 50.8±3.3  | 19.1±0.96 | 15.9+1.2/-0.5 | 38.1+2.2/-0.8  |
| 3/4    | 4.75   | 31.8±1.5  | 60.4±6.4  | 22.2±1.1  | 19.1+1.5/-0.5 | 46.0+2.5/-1.0  |
| 7/8    | 6.5    | 36.5±2    | 71.4±6.4  | 25.4±1.27 | 22.2+2.0/-0.5 | 53.0+3.0/-1.0  |
| 1      | 8.5    | 42.9±2.5  | 81.0±6.4  | 28.6±1.43 | 25.4+2.5/-0.5 | 60.5+3.5/-1.0  |
| 1.1/8  | 9.5    | 46.0±2.5  | 91.0±6.4  | 32.0±1.6  | 28.6+2.5/-0.5 | 68.5+4.0/-1.5  |
| 1.1/4  | 12     | 51.6±3.3  | 100.0±6.4 | 35.0±1.75 | 31.8+2.5/-0.5 | 76.0+4.0/-1.5  |
| 1.3/8  | 13.5   | 57.2±3.3  | 111.2±6.4 | 38.1±1.9  | 34.9+3.0/-0.8 | 84.0+5.0/-2.0  |
| 1.1/2  | 17     | 60.3±3.3  | 122.2±6.4 | 42.0±2.1  | 38.1+3.0/-0.8 | 92.0+5.0/-2.0  |
| 1.3/4  | 25     | 73.0±3.3  | 146.1±6.4 | 50.8±2.5  | 44.5+3.0/-1.0 | 106.0+6.0/-3.0 |
| 2      | 35     | 82.6±3.3  | 171.5±6.4 | 57.2±2.8  | 50.8+3.0/-1.0 | 122.0+6.0/-3.0 |
| 2.1/2" | 55     | 104.8±6.4 | 203.2±6.4 | 70.0±3.5  | 63.5+4.0/-2.0 | 145.0+7.0/-3.0 |

# 3.1

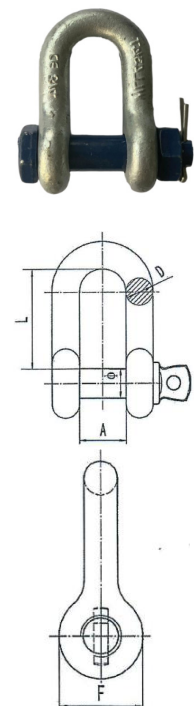
## Shackle

### Drop Forged US Type Safety Pin Bow Shackle Conform to Federal Spec. RR-C-271D



| Size   | WLL(T) | A        | L         | $\Phi$    | D             | E          | F               |
|--------|--------|----------|-----------|-----------|---------------|------------|-----------------|
| 3/8    | 1      | 16.7±1.5 | 36.6±3.3  | 11±0.55   | 9.5+1.0/-0.3  | 26.0±1.3   | 23.1+1.0/-0.5   |
| 7/16   | 1.5    | 18.9±1.5 | 43.0±3.3  | 12.5±0.6  | 11.1+1.0/-0.3 | 29.5±1.5   | 26.9+1.2/-0.5   |
| 1/2    | 2      | 20.6±1.5 | 47.8±3.3  | 16.0±0.8  | 12.7+1.2/-0.5 | 33.0±1.65  | 32.0+2.0/-0.8   |
| 5/8    | 3.25   | 27.0±1.5 | 60.5±3.3  | 19.1±0.96 | 15.9+1.2/-0.5 | 43.0±2.15  | 38.1+2.2/-0.8   |
| 3/4    | 4.75   | 31.8±1.5 | 71.4±6.4  | 22.0±1.1  | 19.1+1.5/-0.5 | 51.0±2.55  | 46.0+2.5/-1.0   |
| 7/8    | 6.5    | 36.5±2   | 84.1±6.4  | 25.0±1.25 | 22.2+2.0/-0.5 | 58.0±2.9   | 53.0+3.0/-1.0   |
| 1      | 8.5    | 42.9±2.5 | 95.3±6.4  | 28.0±1.4  | 25.4+2.5/-0.5 | 68.0±3.4   | 60.5+3.5/-1.0   |
| 1.1/8  | 9.5    | 46.0±2.5 | 108.0±6.4 | 32.0±1.6  | 28.6+2.5/-0.5 | 74.0±3.7   | 68.5+4.0/-1.5   |
| 1.1/4  | 12     | 51.6±3.3 | 119.2±6.4 | 35.0±1.75 | 31.8+2.5/-0.5 | 82.0±4.1   | 76.0+4.0/-1.5   |
| 1.3/8  | 13.5   | 57.2±3.3 | 133.5±6.4 | 38.1±1.9  | 34.9+3/-0.8   | 89.0±4.6   | 84.0+5.0/-2.0   |
| 1.1/2  | 17     | 60.3±3.3 | 146.1±6.4 | 42.0±2.1  | 38.1+3/-0.8   | 98.0±4.9   | 92.0+5.0/-2.0   |
| 1.3/4  | 25     | 73.0±3.3 | 177.8±6.4 | 50.8±2.5  | 44.5+3/-1     | 127.0±6.35 | 106.0+6.0/-3.0  |
| 2      | 35     | 82.6±3.3 | 197.0±6.4 | 57.2±2.8  | 50.8+3/-1     | 146.0±7.3  | 122.0+6.0/-3.0  |
| 2.1/2" | 55     | 105±6.4  | 266.7±6.4 | 70.0±3.5  | 63.5+4/-2     | 184.0±9.2  | 145.0+10.0/-3.0 |

### Drop Forged US Type Safety Pin Dee Shackle Conform to Federal Spec. RR-C-271D



| Size   | WLL(T) | A         | L         | $\Phi$    | D             | F              |
|--------|--------|-----------|-----------|-----------|---------------|----------------|
| 3/8    | 1      | 16.7±1.5  | 31.8±3.3  | 11.1±0.55 | 9.5+1.0/-0.3  | 23.1+1.0/-0.5  |
| 7/16   | 1.5    | 18.9±1.5  | 36.6±3.3  | 12.5±0.6  | 11.1+1.0/-0.3 | 26.9+1.2/-0.5  |
| 1/2    | 2      | 20.6±1.5  | 41.4±3.3  | 16.0±0.8  | 12.7+1.2/-0.5 | 32.0+2.0/-0.8  |
| 5/8    | 3.25   | 27.0±1.5  | 50.8±3.3  | 19.1±0.96 | 15.9+1.2/-0.5 | 38.1+2.2/-0.8  |
| 3/4    | 4.75   | 31.8±1.5  | 60.4±6.4  | 22.0±1.1  | 19.1+1.5/-0.5 | 46.0+2.5/-1.0  |
| 7/8    | 6.5    | 36.5±2    | 71.4±6.4  | 25.0±1.25 | 22.2+2.0/-0.5 | 53.0+3.0/-1.0  |
| 1      | 8.5    | 42.9±2.5  | 81.0±6.4  | 28.0±1.4  | 25.4+2.5/-0.5 | 60.5+3.5/-1.0  |
| 1.1/8  | 9.5    | 46.0±2.5  | 91.0±6.4  | 32.0±1.6  | 28.6+2.5/-0.5 | 68.5+4.0/-1.5  |
| 1.1/4  | 12     | 51.6±3.3  | 100.0±6.4 | 35.0±1.75 | 31.8+2.5/-0.5 | 76.0+4.0/-1.5  |
| 1.3/8  | 13.5   | 57.2±3.3  | 111.2±6.4 | 38.1±1.9  | 34.9+3.0/-0.8 | 84.0+5.0/-2.0  |
| 1.1/2  | 17     | 60.3±3.3  | 122.2±6.4 | 42.0±2.1  | 38.1+3.0/-0.8 | 92.0+5.0/-2.0  |
| 1.3/4  | 25     | 73.0±3.3  | 146.1±6.4 | 50.8±2.5  | 44.5+3.0/-1.0 | 106.0+6.0/-3.0 |
| 2      | 35     | 82.6±3.3  | 171.5±6.4 | 57.2±2.8  | 50.8+3.0/-1.0 | 122.0+6.0/-3.0 |
| 2.1/2" | 55     | 104.8±6.4 | 203.2±6.4 | 70.0±3.5  | 63.5+4.0/-2.0 | 145.0+7.0/-3.0 |

# 3.1

## Shackle

### US Type Commercial Bow Shackle



| Size(In) | Pin Dia(In) | WLL(ton) | Inside Length(In) | Weight(Lbs) |
|----------|-------------|----------|-------------------|-------------|
| 3/16     | 1/4         | 1/4      | 7/8               | 0.05        |
| 1/4      | 5/16        | 1/3      | 1.1/8             | 0.12        |
| 5/16     | 3/8         | 1/2      | 1.7/32            | 0.19        |
| 3/8      | 7/16        | 3/4      | 1.7/16            | 0.31        |
| 7/16     | 1/2         | 1        | 1.11/16           | 0.38        |
| 1/2      | 5/8         | 1.1/2    | 1.7/8             | 0.63        |
| 5/8      | 3/4         | 2.1/4    | 2.3/8             | 1.38        |
| 3/4      | 7/8         | 3.1/4    | 2.13/16           | 2.25        |
| 7/8      | 1           | 4.1/4    | 3.5/16            | 3.38        |
| 1        | 1.1/8       | 5.1/2    | 3.3/4             | 5.32        |

### European Type Commercial Bow Shackle



| Size (mm) | WLL (kgs) | Weight (kg/100pcs) |
|-----------|-----------|--------------------|
| 5         | 80        | 1.7                |
| 6         | 100       | 3.1                |
| 8         | 200       | 6.7                |
| 10        | 300       | 12.6               |
| 11        | 400       | 16.5               |
| 12        | 500       | 23                 |
| 14        | 600       | 36                 |
| 16        | 800       | 56                 |
| 19        | 1000      | 110                |
| 22        | 1500      | 152                |
| 25        | 2000      | 220                |
| 28        | 2600      | 327                |
| 32        | 3200      | 450                |
| 38        | 4500      | 750                |
| 45        | 6500      | 1280               |
| 50        | 8000      | 1800               |

### European Type Commercial Dee Shackle



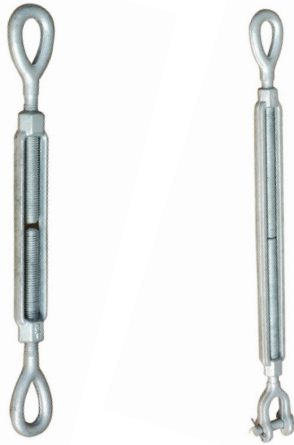
| Size (mm) | WLL (kgs) | Weight (kg/100pcs) |
|-----------|-----------|--------------------|
| 5         | 80        | 1.66               |
| 6         | 100       | 3                  |
| 8         | 200       | 6.57               |
| 10        | 300       | 11.67              |
| 11        | 400       | 16.35              |
| 12        | 500       | 22                 |
| 14        | 600       | 32.3               |
| 16        | 800       | 50                 |
| 19        | 1000      | 100                |
| 22        | 1500      | 140                |
| 25        | 2000      | 208                |
| 28        | 2600      | 350                |
| 32        | 3200      | 430                |
| 38        | 4500      | 720                |
| 45        | 6500      | 1200               |
| 50        | 8000      | 1750               |



## 3.2

## Turnbuckle

### Drop Forged US Type Turnbuckle Conform to Federal Spec. FF-T-791B



- ① End fitting: eye, hook, jaw, stub end.
- ② Material: high tensile carbon steel.
- ③ Finish: H. D. Galv.
- ④ Proof load is 2.5 times of Working Load Limit.
- ⑤ Breaking load is 5 times of Working Load Limit.
- ⑥ Lock nuts are available for all sizes.

| SIZE<br>dia. x take-up | WLL     |          |           |          | Weight  |         |         |          |           |
|------------------------|---------|----------|-----------|----------|---------|---------|---------|----------|-----------|
|                        | Jaw&Jaw | Eye&Eye  | Hook&Hook | Hook&Eye | Jaw&Jaw | Jaw&Eye | Eye&Eye | Hook&Eye | Hook&Hook |
|                        | Jaw&Eye | stub end |           |          |         |         |         |          |           |
| in                     | lbs     | ton      | lbs       | ton      | kg      | kg      | kg      | kg       | kg        |
| 1/4x4                  | 500     | 0.23     | 400       | 0.18     | 0.16    | 0.14    | 0.12    | 0.14     | 0.13      |
| 5/16x4.1/2             | 800     | 0.36     | 700       | 0.32     | 0.24    | 0.23    | 0.2     | 0.21     | 0.21      |
| 3/8x6                  | 1200    | 0.54     | 1000      | 0.45     | 0.37    | 0.36    | 0.34    | 0.35     | 0.35      |
| 1/2x6                  | 2200    | 1        | 1500      | 0.68     | 0.71    | 0.68    | 0.7     | 0.73     | 0.73      |
| 1/2x9                  | 2200    | 1        | —         | —        | 0.79    | 0.78    | —       | —        | —         |
| 1/2x12                 | 2200    | 1        | 1500      | 0.68     | 1.09    | 0.94    | 0.97    | 1.03     | 1.03      |
| 5/8x6                  | 3500    | 1.59     | 2250      | 1.02     | 1.23    | 1.07    | 1.49    | 1.25     | 1.22      |
| 5/8x9                  | 3500    | 1.59     | —         | —        | 1.56    | 1.44    | —       | —        | —         |
| 5/8x12                 | 3500    | 1.59     | 2250      | 1.02     | 1.77    | 1.64    | 1.55    | 1.59     | 1.57      |
| 3/4x6                  | 5200    | 2.6      | 3000      | 1.36     | 1.86    | 1.81    | 1.72    | 1.75     | 1.74      |
| 3/4x9                  | 5200    | 2.6      | —         | —        | 2.48    | 2.15    | —       | —        | —         |
| 3/4x12                 | 5200    | 2.6      | 3000      | 1.36     | 2.98    | 2.69    | 2.49    | 2.46     | 2.47      |
| 3/4x18                 | 5200    | 2.6      | 3000      | 1.36     | 3.64    | 3.18    | 3.26    | 3.68     | 3.47      |
| 7/8x12                 | 7200    | 3.27     | 4000      | 1.81     | 3.71    | 3.79    | 3.27    | 3.67     | 3.47      |
| 7/8x18                 | 7200    | 3.27     | —         | —        | 4.89    | 4.42    | 4.51    | —        | —         |
| 1x6                    | 10000   | 4.54     | —         | —        | 4.62    | 4.05    | 4.1     | —        | —         |
| 1x12                   | 10000   | 4.54     | 5000      | 2.27     | 5.53    | 5.08    | 5.22    | 5.41     | 5.31      |
| 1x18                   | 10000   | 4.54     | 5000      | 2.27     | 6.87    | 6.03    | 6.35    | 6.35     | 6.35      |
| 1x24                   | 10000   | 4.54     | 5000      | 2.27     | 8.2     | 7.71    | 7.82    | 7.82     | 7.82      |
| 1.1/4x12               | 15200   | 6.89     | 6500      | 2.95     | 9.34    | 8.81    | 8.62    | 9.33     | 8.97      |
| 1.1/4x18               | 15200   | 6.89     | 6500      | 2.95     | 11.2    | 11      | 10.4    | 10.4     | 10.4      |
| 1.1/4x24               | 15200   | 6.89     | 6500      | 2.95     | 12.8    | 12.9    | 12.2    | 12.2     | 12.2      |
| 1.1/2x12               | 21400   | 9.71     | 7500      | 3.4      | 13.9    | 13.1    | 12.5    | 12.5     | 12.5      |
| 1.1/2x18               | 21400   | 9.71     | 7500      | 3.4      | 16.7    | 15.9    | 14.1    | 14.1     | 14.1      |
| 1.1/2x24               | 21400   | 9.71     | 7500      | 3.4      | 18.9    | 17.8    | 17      | 17       | 17        |
| 1.3/4x18               | 28000   | 12.7     | —         | —        | 24.5    | 24.4    | 23.8    | —        | —         |
| 1.3/4x24               | 28000   | 12.7     | —         | —        | 28.7    | 27.5    | 26.3    | —        | —         |
| 2x24                   | 37000   | 16.8     | —         | —        | 42.8    | 40.4    | 38.7    | —        | —         |
| 2.1/2x24               | 60000   | 27.2     | —         | —        | 75      | 68      | 65      | —        | —         |
| 2.3/4x24               | 75000   | 34       | —         | —        | 90      | 83      | 88      | —        | —         |

## 3.2

## Turnbuckle

### JIS Frame Type Turnbuckle



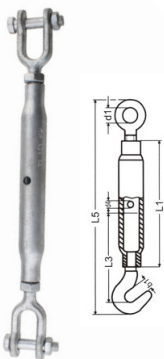
| Size | Body length | T.L(t) |      | Weight |
|------|-------------|--------|------|--------|
|      | mm          | EYE    | HOOK | kg     |
| M6   | 100         | 0.1    | 0.04 | 0.114  |
| M8   | 125         | 0.2    | 0.08 | 0.218  |
| M10  | 150         | 0.5    | 0.15 | 0.293  |
| M12  | 200         | 2      | 0.35 | 0.585  |
| M16  | 250         | 3      | 0.7  | 1.05   |
| M20  | 300         | 4      | 1    | 1.78   |
| M22  | 330         | 5      | 1.5  | 2.58   |
| M25  | 400         | 6      | 2    | 3.77   |
| M32  | 400         | 8      | 3    | 7.52   |
| M38  | 450         | 10     | 4    | 12.8   |

### Closed Body Turnbuckle



| Size | Body length<br>mm | WLL<br>t | Weight<br>kg |
|------|-------------------|----------|--------------|
| M6   | 102               | 0.1      | 0.1          |
| M8   | 127               | 0.15     | 0.2          |
| M10  | 152               | 0.38     | 0.4          |
| M12  | 229               | 0.5      | 1            |
| M16  | 229               | 0.76     | 1.4          |
| M20  | 228               | 1.2      | 2            |
| M22  | 305               | 1.7      | 3.4          |
| M24  | 356               | 2.2      | 4.4          |
| M27  | 356               | 2.8      | 5.5          |
| M33  | 381               | 3.8      | 8            |
| M39  | 407               | 5.2      | 12           |
| M45  | 407               | 7.2      | 17           |
| M50  | 407               | 10       | 24           |

### DIN1478 Pipe Body Turnbuckle

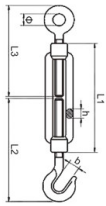


| Size | Body Length<br>L1 | Adjustable | d4 | Hook |      | Eye |    | Total length<br>screwed in | Weight |
|------|-------------------|------------|----|------|------|-----|----|----------------------------|--------|
|      | mm                |            |    | L3   | b1   | L3  | d1 |                            |        |
| M6   | 110               | 90         | 6  | 85   | 8.5  | 80  | 9  | 172                        | 0.116  |
| M8   | 110               | 85         | 8  | 85   | 11   | 84  | 10 | 182                        | 0.19   |
| M10  | 125               | 95         | 8  | 112  | 13.5 | 105 | 14 | 213                        | 0.31   |
| M12  | 125               | 90         | 10 | 117  | 15.5 | 115 | 16 | 238                        | 0.42   |
| M16  | 170               | 120        | 10 | 138  | 19   | 165 | 22 | 320                        | 0.89   |
| M20  | 200               | 140        | 12 | 170  | 20.5 | 167 | 24 | 367                        | 1.58   |
| M24  | 255               | 180        | 12 | 205  | 26   | 205 | 27 | 447                        | 2.92   |
| M30  | 255               | 160        | 16 | 225  | 33   | 255 | 31 | 512                        | 4.3    |
| M36  | 95                | 180        | 16 | 255  | 44   | 276 | 43 | 568                        | 6.05   |
| M42  | 330               | 200        | 20 | 340  | 48   | 260 | 49 | 683                        | 11.6   |
| M48  | 355               | 210        | 20 | 360  | 58   | 300 | 58 | 755                        | 16     |

## 3.2

## Turnbuckle

### DIN1480 Turnbuckle

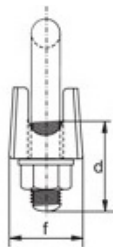
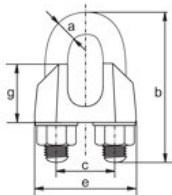


| SIZE | L1<br>mm | L2<br>mm | L3<br>mm | h<br>mm | φ<br>mm | b<br>mm | weight<br>kg |
|------|----------|----------|----------|---------|---------|---------|--------------|
| M5   | 70       | 62       | 58       | 5       | 8       | 7       | 0.046        |
| M6   | 110      | 87       | 80       | 7       | 9       | 8.5     | 0.093        |
| M8   | 110      | 95       | 84       | 8       | 10      | 11      | 0.166        |
| M10  | 125      | 118      | 105      | 9.5     | 15      | 13.5    | 0.302        |
| M12  | 125      | 125      | 115      | 11      | 17      | 15.5    | 0.435        |
| M14  | 140      | 140      | 121      | 13.5    | 18      | 18.5    | 0.617        |
| M16  | 170      | 164      | 150      | 14      | 22      | 20      | 0.925        |
| M20  | 200      | 196      | 163      | 17      | 24      | 21.5    | 1.685        |
| M22  | 220      | 214      | 185      | 19      | 27      | 26      | 2.23         |
| M24  | 255      | 236      | 205      | 21      | 27      | 26      | 3.02         |
| M27  | 255      | 250      | 216      | 22      | 34      | 29      | 3.835        |
| M30  | 255      | 264      | 230      | 23      | 31      | 33      | 4.53         |
| M33  | 255      | 292      | 242      | 25      | 39      | 36      | 5.45         |
| M36  | 295      | 319      | 270      | 28      | 43      | 44      | 8.06         |

## 3.3

## Clip

### Yellow Chromated Wire Rope Clip Conform to DIN1142 & EN13411 Type A



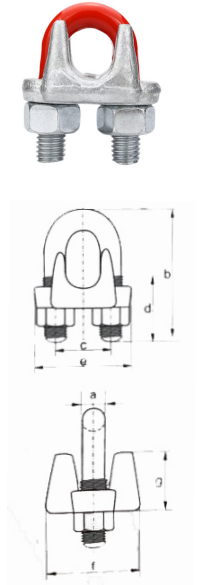
| Size | A   | B   | C  | D  | E   | F  | G  | torque | Min. no<br>for clips | Weight    |
|------|-----|-----|----|----|-----|----|----|--------|----------------------|-----------|
| mm   | mm  | mm  | mm | mm | mm  | mm | mm | Nm     | pcs                  | kg/100pcs |
| 5    | M5  | 25  | 12 | 13 | 25  | 13 | 13 | 2      | 3                    | 2         |
| 6.5  | M6  | 32  | 14 | 17 | 30  | 16 | 14 | 3.5    | 3                    | 4         |
| 8    | M8  | 41  | 18 | 20 | 39  | 20 | 18 | 6      | 4                    | 8.2       |
| 10   | M8  | 46  | 20 | 24 | 40  | 20 | 21 | 9      | 4                    | 9.2       |
| 12   | M10 | 56  | 24 | 28 | 50  | 24 | 25 | 20     | 4                    | 21.5      |
| 13   | M12 | 64  | 27 | 30 | 55  | 28 | 29 | 33     | 4                    | 27.5      |
| 14   | M12 | 66  | 28 | 31 | 59  | 28 | 30 | 33     | 4                    | 39.5      |
| 16   | M14 | 76  | 32 | 35 | 64  | 32 | 35 | 49     | 4                    | 43        |
| 19   | M14 | 83  | 36 | 36 | 68  | 32 | 40 | 68     | 5                    | 49        |
| 22   | M16 | 96  | 40 | 40 | 74  | 34 | 44 | 107    | 5                    | 68        |
| 26   | M20 | 118 | 46 | 50 | 84  | 38 | 51 | 147    | 5                    | 117       |
| 30   | M20 | 131 | 54 | 55 | 95  | 41 | 59 | 212    | 6                    | 140       |
| 34   | M22 | 150 | 60 | 60 | 105 | 45 | 67 | 296    | 6                    | 213       |
| 40   | M24 | 167 | 68 | 65 | 117 | 49 | 77 | 363    | 6                    | 268       |



### 3.3

### Clip

#### Drop Forged US Type Wire Rope Clip Conform to Federal Spec. FF-C-450 Type I , Class I



| SIZE<br>in | a<br>(mm) | b<br>(mm) | c<br>(mm) | d<br>(mm) | e<br>(mm) | f<br>(mm) | g<br>(mm) | torque<br>(Nm) | Weight<br>(kg) |
|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|----------------|----------------|
| 1/8        | 5         | 24        | 12        | 11        | 24        | 21        | 10        | 6.1            | 0.03           |
| 3/16       | 6         | 31        | 14        | 13        | 29        | 24        | 13        | 10.2           | 0.04           |
| 1/4        | 8         | 34        | 19        | 13        | 37        | 30        | 17        | 20.3           | 0.09           |
| 5/16       | 10        | 45        | 22        | 19        | 43        | 33        | 18        | 40.7           | 0.13           |
| 3/8        | 11        | 49        | 26        | 19        | 49        | 42        | 25        | 61             | 0.2            |
| 7/16       | 12        | 60        | 30        | 25        | 58        | 46        | 26        | 88             | 0.32           |
| 1/2        | 13        | 61        | 30        | 26        | 58        | 48        | 27        | 88             | 0.33           |
| 9/16       | 14        | 72        | 33        | 32        | 63        | 52        | 31        | 129            | 0.45           |
| 5/8        | 14        | 74        | 33        | 32        | 64        | 52        | 33        | 129            | 0.46           |
| 3/4        | 16        | 86        | 38        | 37        | 72        | 57        | 37        | 176            | 0.68           |
| 7/8        | 19        | 98        | 45        | 40        | 80        | 62        | 40        | 305            | 0.96           |
| 1          | 19        | 108       | 48        | 46        | 88        | 67        | 44        | 305            | 1.18           |
| 1.1/8      | 19        | 117       | 51        | 51        | 91        | 72        | 48        | 305            | 1.28           |
| 1.1/4      | 22        | 130       | 59        | 54        | 105       | 79        | 56        | 488            | 1.9            |
| 1.3/8      | 22        | 140       | 60        | 59        | 108       | 79        | 58        | 488            | 2              |
| 1.1/2      | 22        | 147       | 66        | 60        | 112       | 86        | 64        | 488            | 2.35           |
| 1.5/8      | 22        | 161       | 70        | 67        | 132       | 92        | 67        | 583            | 3.1            |
| 1.3/4      | 29        | 175       | 78        | 74        | 134       | 97        | 78        | 800            | 4.2            |
| 2          | 32        | 195       | 86        | 78        | 152       | 113       | 87        | 1017           | 5.8            |
| 2.1/4      | 32        | 208       | 98        | 81        | 162       | 116       | 100       | 1017           | 7.3            |
| 2.1/2      | 32        | 227       | 105       | 87        | 168       | 119       | 113       | 1017           | 8.25           |
| 2.3/4      | 32        | 243       | 112       | 91        | 174       | 127       | 124       | 1017           | 10.5           |
| 3          | 38        | 271       | 121       | 104       | 194       | 135       | 136       | 1627           | 14.2           |
| 3.1/2      | 38        | 311       | 140       | 114       | 213       | 157       | 152       | 1627           | 18.1           |

#### Duplex Wire Rope Clip



| Size<br>(mm) | L<br>(mm) | D<br>(mm) | Weight<br>kg/100pcs |
|--------------|-----------|-----------|---------------------|
| 2            | 37        | M4        | 0.8                 |
| 3            | 40        | M4        | 1.5                 |
| 4            | 43        | M5        | 2.4                 |
| 5            | 52        | M6        | 3.1                 |
| 6            | 60        | M6        | 5.2                 |
| 8            | 72        | M8        | 10                  |
| 10           | 84        | M10       | 15.2                |

#### Simplex Wire Rope Clip

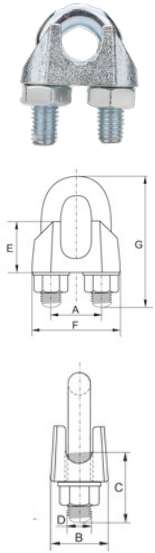


| Size<br>(mm) | L<br>(mm) | D<br>(mm) | Weight<br>kg/100pcs |
|--------------|-----------|-----------|---------------------|
| 2            | 18        | M4        | 0.4                 |
| 3            | 20        | M4        | 0.8                 |
| 4            | 21        | M5        | 1.2                 |
| 5            | 26        | M6        | 1.5                 |
| 6            | 30        | M6        | 2.5                 |
| 8            | 36        | M8        | 5                   |
| 10           | 42        | M10       | 8                   |

## 3.3

## Clip

### DIN741 Malleable Wire Rope Clip

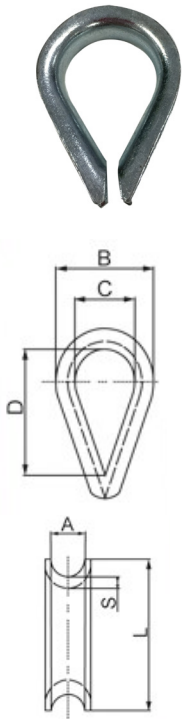


| Size (mm) | A (mm) | B (mm) | C (mm) | D (mm) | E (mm) | F (mm) | G (mm) | Weight (kg) |
|-----------|--------|--------|--------|--------|--------|--------|--------|-------------|
| 3         | 9      | 10     | 12     | 4      | 10     | 21     | 16     | 0.014       |
| 5         | 11     | 11     | 13     | 5      | 10     | 23     | 19     | 0.015       |
| 6.5       | 13     | 12     | 15     | 5      | 11     | 26     | 23     | 0.021       |
| 8         | 16     | 14     | 19     | 6      | 15     | 30     | 28     | 0.041       |
| 10        | 19     | 18     | 22     | 8      | 17     | 34     | 34     | 0.068       |
| 11        | 20     | 19     | 22     | 8      | 18     | 36     | 36     | 0.072       |
| 13        | 24     | 23     | 30     | 10     | 21     | 42     | 45     | 0.13        |
| 14        | 25     | 23     | 30     | 10     | 22     | 44     | 47     | 0.135       |
| 16        | 29     | 26     | 33     | 12     | 26     | 50     | 51     | 0.21        |
| 19        | 32     | 29     | 38     | 12     | 30     | 54     | 63     | 0.28        |
| 22        | 37     | 33     | 44     | 14     | 34     | 61     | 71     | 0.4         |
| 26        | 41     | 35     | 45     | 14     | 37     | 65     | 81     | 0.44        |
| 30        | 48     | 37     | 50     | 16     | 43     | 74     | 94     | 0.66        |
| 34        | 52     | 42     | 55     | 16     | 50     | 80     | 104    | 0.85        |
| 40        | 58     | 45     | 60     | 16     | 55     | 88     | 124    | 1.04        |

## 3.4

## Thimble

### European Type Thimble

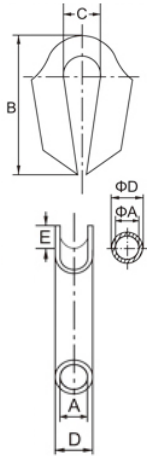


| SIZE | A (mm) | B (mm) | C (mm) | D (mm) | L (mm) | S (mm) | Weight kg/100pcs |
|------|--------|--------|--------|--------|--------|--------|------------------|
| 3mm  | 3      | 19     | 11     | 16     | 25     | 1.5    | 0.8              |
| 4mm  | 4      | 19     | 11     | 16     | 25     | 1.5    | 0.8              |
| 5mm  | 5      | 25     | 16     | 22     | 31     | 1.5    | 1.1              |
| 6mm  | 6      | 30     | 19     | 26     | 37     | 2      | 1.9              |
| 8mm  | 8      | 38     | 24     | 34     | 51     | 2      | 2.8              |
| 10mm | 10     | 48     | 32     | 42     | 64     | 3      | 6.5              |
| 12mm | 12     | 57     | 38     | 51     | 76     | 3      | 8.8              |
| 14mm | 14     | 62     | 40     | 57     | 82     | 3      | 10               |
| 16mm | 16     | 66     | 42     | 60     | 89     | 3      | 12.5             |
| 18mm | 18     | 73     | 45     | 67     | 102    | 4      | 20               |
| 20mm | 20     | 81     | 51     | 76     | 115    | 4      | 26               |
| 22mm | 22     | 87     | 54     | 83     | 127    | 4      | 33               |
| 24mm | 24     | 100    | 64     | 90     | 138    | 4      | 41               |
| 26mm | 26     | 107    | 68     | 102    | 152    | 5      | 57               |
| 28mm | 28     | 115    | 73     | 110    | 165    | 5      | 68               |
| 30mm | 30     | 121    | 79     | 120    | 178    | 6      | 92               |
| 32mm | 32     | 141    | 93     | 143    | 203    | 6      | 114              |
| 34mm | 34     | 146    | 100    | 160    | 230    | 6      | 136              |
| 36mm | 36     | 155    | 110    | 175    | 245    | 6      | 163              |
| 40mm | 40     | 166    | 115    | 190    | 260    | 6      | 190              |

## 3.4

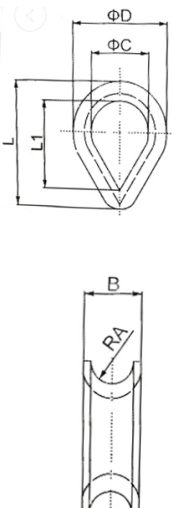
## Thimble

### Tubular Thimble



| SIZE  | For rope dia (mm) | A (mm) | B (mm) | C (mm) | D (mm) | E (mm) | Weight kg/100pcs |
|-------|-------------------|--------|--------|--------|--------|--------|------------------|
| G212  | 10                | 12     | 90     | 23     | 20     | 8      | 0.24             |
| G215  | 12                | 15     | 105    | 27     | 25     | 10     | 0.41             |
| G217  | 14                | 17     | 115    | 27     | 25     | 10     | 0.39             |
| G219  | 16                | 19     | 120    | 32     | 29     | 12     | 0.60             |
| G222  | 18                | 22     | 140    | 35     | 32     | 15     | 0.75             |
| G225  | 22                | 25     | 180    | 45     | 37.6   | 16     | 1.40             |
| G228  | 24                | 28     | 180    | 45     | 42     | 16     | 1.75             |
| G230  | 26                | 30     | 195    | 47     | 44     | 18     | 2.2              |
| G235  | 32                | 35     | 215    | 60     | 49     | 22     | 2.6              |
| G240  | 35                | 40     | 240    | 65     | 54     | 24     | 2.95             |
| G245  | 38                | 45     | 260    | 70     | 59     | 27     | 3.85             |
| G250  | 44                | 50     | 280    | 75     | 64     | 28     | 4.40             |
| G255  | 50                | 55     | 298    | 85     | 69     | 32     | 5.1              |
| G260  | 54                | 60     | 300    | 88     | 75     | 34     | 5.9              |
| G265  | 56                | 65     | 312    | 88     | 79     | 35     | 6.6              |
| G270  | 60                | 70     | 332    | 90     | 84     | 38     | 7.1              |
| G275  | 65                | 75     | 342    | 94     | 90     | 40     | 8.0              |
| G285  | 72                | 88     | 450    | 130    | 108    | 56     | 20.1             |
| G295  | 80                | 94     | 500    | 150    | 114    | 60     | 24.8             |
| G2105 | 92                | 107    | 550    | 190    | 127    | 67.5   | 30.4             |

### US Type G414 Heavy Duty Thimble Conform to Federal Spec. FF-T-276B Type III



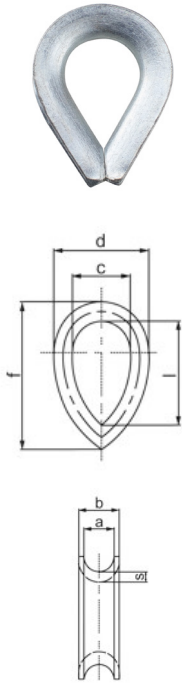
| SIZE        | L mm | L1 mm | RA mm | B mm | ΦC mm | ΦD mm | Weight kg |
|-------------|------|-------|-------|------|-------|-------|-----------|
| 1/4         | 56   | 41    | 3.5   | 10.4 | 22    | 38    | 0.034     |
| 5/16        | 64   | 48    | 4.3   | 12.7 | 27    | 46    | 0.06      |
| 3/8         | 73   | 54    | 5.2   | 15.7 | 28.7  | 54    | 0.11      |
| 7/16        | 83   | 60    | 6     | 19   | 32    | 60    | 0.16      |
| 1/2         | 92   | 70    | 6.7   | 21.7 | 38    | 70    | 0.23      |
| 9/16        | 92   | 70    | 7.5   | 23.4 | 38    | 68    | 0.23      |
| 5/8         | 108  | 84    | 8.4   | 25.4 | 44    | 79    | 0.34      |
| 3/4         | 127  | 95    | 9.9   | 31.5 | 51    | 97    | 0.67      |
| 7/8         | 140  | 108   | 12    | 35   | 57    | 108   | 0.83      |
| 1           | 156  | 114   | 13.5  | 39.7 | 63.5  | 125   | 1.36      |
| 1.1/8-1.1/4 | 178  | 130   | 17    | 48   | 73    | 149   | 1.4       |
| 1.1/4-1.3/8 | 230  | 165   | 18    | 55   | 89    | 172   | 3.78      |
| 1.3/8-1.1/2 | 230  | 165   | 21    | 62   | 89    | 178   | 5.44      |
| 1.5/8       | 286  | 203   | 22    | 66   | 102   | 207   | 7.37      |
| 1.3/4       | 310  | 229   | 24    | 69   | 114   | 210   | 8.16      |
| 1.7/8-2     | 384  | 305   | 27    | 75   | 153   | 260   | 10        |
| 2.1/4       | 430  | 340   | 30    | 94   | 178   | 302   | 19        |
| 2.1/2       | 450  | 350   | 35    | 110  | 190   | 320   | 25.23     |
| 2.5/8       | 460  | 366   | 37    | 114  | 200   | 334   | 28        |
| 2.3/4       | 515  | 425   | 39    | 118  | 210   | 348   | 30.6      |
| 3           | 550  | 445   | 42    | 124  | 210   | 354   | 33.9      |
| 3.1/2       | 555  | 445   | 47.5  | 135  | 245   | 395   | 40        |



# 3.4

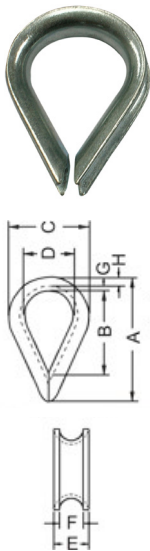
# Thimble

## BS464 Thimble



| SIZE   | a<br>mm | b<br>mm | c<br>mm | d<br>mm | f<br>mm | l<br>mm | Weight<br>kg |
|--------|---------|---------|---------|---------|---------|---------|--------------|
| 1/4"   | 6.4     | 11.5    | 18      | 34      | 46      | 26      | 0.04         |
| 5/16"  | 7.9     | 12.7    | 22.2    | 38      | 52      | 33.4    | 0.06         |
| 3/8"   | 10.9    | 14.3    | 25.4    | 47.6    | 64      | 38      | 0.07         |
| 7/16"  | 12.7    | 17.5    | 28.6    | 52      | 73      | 41      | 0.10         |
| 1/2"   | 13      | 20.6    | 31.7    | 58      | 79.4    | 44      | 0.13         |
| 9/16"  | 14.5    | 20.6    | 31.7    | 58      | 79.4    | 44      | 0.15         |
| 5/8"   | 16.1    | 22.2    | 41.3    | 74.5    | 95.8    | 59      | 0.26         |
| 11/16" | 18      | 28.6    | 44.5    | 79.4    | 108     | 67      | 0.35         |
| 3/4"   | 20.6    | 29.6    | 50.8    | 92      | 124     | 73      | 0.46         |
| 7/8"   | 22.2    | 31.7    | 56      | 102     | 133     | 83      | 0.62         |
| 15/16" | 25.4    | 33.4    | 64      | 110     | 146     | 92      | 0.85         |
| 1"     | 27      | 35      | 69.8    | 119     | 162     | 108     | 0.95         |
| 1.1/8" | 28.6    | 35      | 76      | 133     | 178     | 111     | 1.15         |
| 1.1/4" | 33.4    | 41.5    | 95      | 152     | 197     | 133     | 1.35         |
| 1.3/8" | 38      | 47.6    | 105     | 175     | 228     | 152     | 2.25         |
| 1.1/2" | 41.3    | 52      | 114     | 197     | 254     | 165     | 3.2          |
| 1.5/8" | 42.9    | 58.6    | 120     | 197     | 264     | 165     | 3.5          |
| 1.3/4" | 50.1    | 56      | 127     | 228     | 280     | 178     | 5.4          |
| 1.7/8" | 60      | 66.6    | 133     | 240     | 310     | 191     | 6.6          |
| 2"     | 62      | 69.8    | 140     | 257     | 330     | 203     | 7.2          |
| 2.1/4" | 60      | 78      | 165     | 270     | 445     | 216     | 13           |
| 2.1/2" | 64      | 84      | 178     | 305     | 490     | 241     | 14           |
| 2.3/4" | 70      | 86      | 180     | 310     | 435     | 273     | 17           |

## US Type Wire Rope Thimble G411



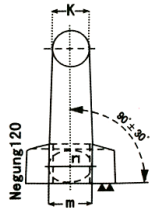
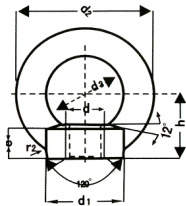
| SIZE          | A<br>mm | B<br>mm | C<br>mm | D<br>mm | E<br>mm | F<br>mm | G<br>mm | H<br>mm | Weight<br>kg/100pcs |
|---------------|---------|---------|---------|---------|---------|---------|---------|---------|---------------------|
| 1/8           | 49      | 33      | 27      | 17.5    | 6.35    | 4       | 1.27    | 3.3     | 1.5                 |
| 3/16          | 49      | 33      | 27      | 17.5    | 7.9     | 5.6     | 1.27    | 3.3     | 1.5                 |
| 1/4           | 49      | 33      | 27      | 17.5    | 9.6     | 7.1     | 1.27    | 3.3     | 1.5                 |
| 5/16"         | 54      | 38      | 32      | 20.6    | 11.2    | 8.6     | 1.27    | 3.3     | 1.82                |
| 3/8"          | 60      | 41.5    | 37      | 24      | 13.5    | 10.4    | 1.52    | 4.06    | 3.4                 |
| 1/2"          | 70      | 48      | 44.5    | 29      | 17.5    | 13.5    | 2.03    | 4.83    | 6.26                |
| 5/8"          | 89      | 57      | 60.5    | 35      | 23.1    | 16.8    | 3.3     | 8.64    | 16.32               |
| 3/4"          | 95      | 63.5    | 68      | 41      | 27.4    | 19.8    | 3.56    | 8.64    | 22.68               |
| 7/8"          | 127     | 89      | 81      | 48      | 32.3    | 22.9    | 4.06    | 11.2    | 40.82               |
| 1"            | 170     | 108     | 95      | 63.5    | 35      | 26.9    | 4.06    | 11.2    | 42.62               |
| 1.1/8"-1.1/4" | 159     | 114     | 109     | 70      | 44.5    | 33.3    | 5.59    | 12.7    | 84.36               |

## 3.5

## Eyebolt

## DIN582 Eye Nut

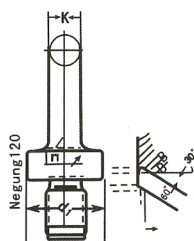
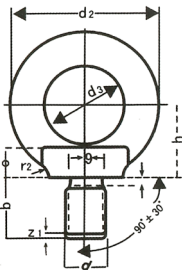
Material: C15 or C15E



| SIZE<br>d | WLL<br>(ton) | Weight<br>per 100pcs<br>(kg) | Dimensions (mm) |     |     |     |      |    |
|-----------|--------------|------------------------------|-----------------|-----|-----|-----|------|----|
|           |              |                              | d1              | d2  | d3  | e   | h    | k  |
| M6        | 0.08         | 4.5                          | 20              | 36  | 20  | 8.5 | 18   | 8  |
| M8        | 0.14         | 5.0                          | 20              | 36  | 20  | 8.5 | 18   | 8  |
| M10       | 0.23         | 9.0                          | 25              | 45  | 25  | 10  | 22.5 | 10 |
| M12       | 0.34         | 16.0                         | 30              | 54  | 30  | 11  | 26   | 12 |
| M14       | 0.49         | 24.0                         | 35              | 63  | 35  | 13  | 30.5 | 14 |
| M16       | 0.7          | 24.0                         | 35              | 63  | 35  | 13  | 30.5 | 14 |
| M18       | 0.93         | 36.0                         | 40              | 72  | 40  | 16  | 35   | 16 |
| M20       | 1.2          | 36.0                         | 40              | 72  | 40  | 16  | 35   | 16 |
| M22       | 1.5          | 58.0                         | 45              | 81  | 45  | 18  | 40   | 18 |
| M24       | 1.8          | 72.0                         | 50              | 90  | 50  | 20  | 45   | 20 |
| M27       | 2.5          | 70.0                         | 50              | 90  | 50  | 20  | 45   | 20 |
| M30       | 3.6          | 132.0                        | 65              | 108 | 60  | 25  | 55   | 24 |
| M33       | 4.3          | 130.0                        | 65              | 108 | 60  | 25  | 55   | 24 |
| M36       | 5.1          | 208.0                        | 75              | 126 | 70  | 30  | 65   | 28 |
| M39       | 6.1          | 202.0                        | 75              | 126 | 70  | 30  | 65   | 28 |
| M42       | 7.0          | 311.0                        | 85              | 144 | 80  | 35  | 75   | 32 |
| M45       | 8.0          | 304.0                        | 85              | 144 | 80  | 35  | 75   | 32 |
| M48       | 8.6          | 502.0                        | 100             | 166 | 90  | 40  | 85   | 38 |
| M52       | 9.9          | 495.0                        | 100             | 166 | 90  | 40  | 85   | 38 |
| M56       | 11.5         | 669.0                        | 110             | 184 | 100 | 45  | 95   | 42 |
| M64       | 16.0         | 930.0                        | 120             | 206 | 110 | 50  | 105  | 48 |

## DIN580 Eye Bolt

Material: C15 or C15E

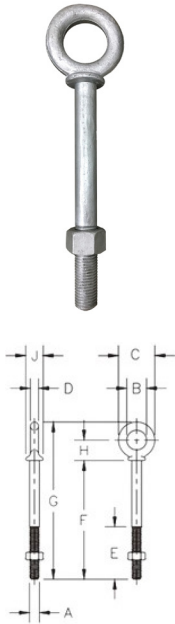


| SIZE<br>d | WLL<br>(ton) | Weight<br>per 100pcs<br>(kg) | Dimensions(mm) |     |     |      |    |      |    |
|-----------|--------------|------------------------------|----------------|-----|-----|------|----|------|----|
|           |              |                              | d1             | d2  | d3  | b    | e  | h    | k  |
| M6        | 0.08         | 5                            | 20             | 36  | 20  | 13   | 6  | 18   | 8  |
| M8        | 0.14         | 6                            | 20             | 36  | 20  | 13   | 6  | 18   | 8  |
| M10       | 0.23         | 11                           | 25             | 45  | 25  | 17   | 8  | 22.5 | 10 |
| M12       | 0.34         | 18                           | 30             | 54  | 30  | 20.5 | 10 | 26   | 12 |
| M14       | 0.49         | 28                           | 35             | 63  | 35  | 27   | 12 | 30.5 | 14 |
| M16       | 0.7          | 28                           | 35             | 63  | 35  | 27   | 12 | 30.5 | 14 |
| M18       | 0.93         | 45                           | 40             | 72  | 40  | 30   | 14 | 35   | 16 |
| M20       | 1.2          | 45                           | 40             | 72  | 40  | 30   | 14 | 35   | 16 |
| M22       | 1.5          | 67                           | 45             | 81  | 45  | 35   | 16 | 40   | 18 |
| M24       | 1.8          | 87                           | 50             | 90  | 50  | 36   | 18 | 45   | 20 |
| M27       | 2.5          | 88                           | 50             | 90  | 50  | 36   | 18 | 45   | 20 |
| M30       | 3.6          | 166                          | 65             | 108 | 60  | 45   | 22 | 55   | 24 |
| M33       | 4.3          | 172                          | 65             | 108 | 60  | 45   | 22 | 55   | 24 |
| M36       | 5.1          | 265                          | 75             | 126 | 70  | 54   | 26 | 65   | 28 |
| M39       | 6.1          | 280                          | 75             | 126 | 70  | 54   | 26 | 65   | 28 |
| M42       | 7.0          | 403                          | 85             | 144 | 80  | 63   | 30 | 75   | 32 |
| M45       | 8.0          | 425                          | 85             | 144 | 80  | 63   | 30 | 75   | 32 |
| M48       | 8.6          | 638                          | 100            | 166 | 90  | 68   | 35 | 85   | 38 |
| M52       | 9.9          | 660                          | 100            | 166 | 90  | 68   | 35 | 85   | 38 |
| M56       | 11.5         | 880                          | 110            | 184 | 100 | 78   | 38 | 95   | 42 |
| M64       | 16.0         | 1240                         | 120            | 206 | 110 | 90   | 42 | 105  | 48 |

## 3.5

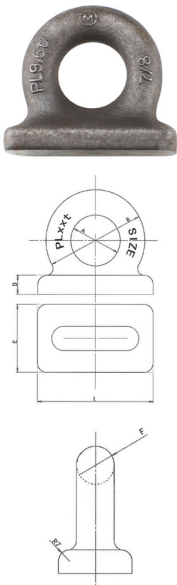
## Eyebolt

## G277 Shoulder Eye Bolt



| SIZE<br>in | WLL<br>ton | A<br>mm | B<br>mm | C<br>mm | D<br>mm | E<br>mm | F<br>mm | G<br>mm | H<br>mm | J<br>mm | Weight<br>kg/100pcs |
|------------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------------------|
| 1/4x2      | 0.29       | 6.35    | 12.7    | 22.4    | 4.85    | 38.1    | 51.0    | 74.5    | 12.7    | 11.9    | 2.99                |
| 1/4x4      | 0.29       | 6.35    | 12.7    | 22.4    | 4.85    | 63.5    | 102     | 125     | 12.7    | 11.9    | 4.13                |
| 5/16x2.1/4 | 0.54       | 7.85    | 15.7    | 28.4    | 6.35    | 38.1    | 57.0    | 89.0    | 17.5    | 14.2    | 5.67                |
| 5/16x4.1/4 | 0.54       | 7.85    | 15.7    | 28.4    | 6.35    | 63.5    | 108     | 140     | 17.5    | 14.2    | 8.53                |
| 3/8x2.1/2  | 0.7        | 9.65    | 19.1    | 35.1    | 7.85    | 38.1    | 63.5    | 101     | 19.8    | 16.8    | 9.71                |
| 3/8x4.1/2  | 0.7        | 9.65    | 19.1    | 35.1    | 7.85    | 63.5    | 114     | 152     | 19.8    | 16.8    | 11.5                |
| 1/2x3.1/2  | 1.19       | 12.7    | 25.4    | 44.5    | 9.65    | 38.1    | 82.5    | 130     | 25.4    | 23.1    | 19.3                |
| 1/2x6      | 1.18       | 12.7    | 25.4    | 44.5    | 9.65    | 76.0    | 152     | 200     | 25.4    | 23.1    | 25.8                |
| 5/8x4      | 2.35       | 15.7    | 31.8    | 57.0    | 12.7    | 51.0    | 102     | 164     | 33.3    | 28.4    | 31.1                |
| 5/8x6      | 2.35       | 15.7    | 31.8    | 57.0    | 12.7    | 76.0    | 152     | 214     | 33.3    | 28.4    | 46.4                |
| 3/4x4.1/2  | 3.26       | 19.1    | 38.1    | 70.0    | 15.7    | 51.0    | 114     | 189     | 39.6    | 35.1    | 66                  |
| 3/4x6      | 3.26       | 19.1    | 38.1    | 70.0    | 15.7    | 76.0    | 152     | 227     | 39.6    | 35.1    | 76                  |
| 7/8x5      | 4.8        | 22.4    | 44.5    | 82.5    | 19.1    | 63.5    | 127     | 215     | 46.7    | 39.6    | 102                 |
| 1x6        | 6.03       | 25.4    | 51.0    | 95.5    | 22.4    | 76.0    | 152     | 253     | 53.0    | 46.0    | 166                 |
| 1x9        | 6.03       | 25.4    | 51.0    | 95.5    | 22.4    | 102     | 229     | 329     | 53.0    | 46.0    | 192                 |
| 1.1/4x8    | 9.52       | 31.8    | 63.5    | 114     | 25.4    | 102     | 203     | 323     | 62.5    | 58.0    | 295                 |
| 1.1/4x12   | 9.52       | 31.8    | 63.5    | 114     | 25.4    | 102     | 305     | 425     | 62.5    | 58.0    | 361                 |
| 1.1/4x15   | 10.8       | 38.1    | 76.0    | 140     | 31.8    | 152     | 381     | 527     | 76.0    | 70.0    | 646                 |

## Rectangular Base Eye Plate



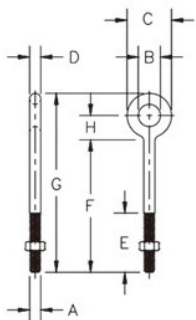
| SIZE | WLL<br>(t) | A<br>(mm) | B<br>(mm) | D<br>(mm) | E<br>(mm) | L<br>(mm) | f<br>(mm) |
|------|------------|-----------|-----------|-----------|-----------|-----------|-----------|
| 10   | 2.0T       | 20        | 41        | 9         | 26        | 48        | 10.5      |
| 13   | 3.5T       | 25.5      | 50.5      | 11        | 35        | 63        | 12.5      |
| 16   | 5.5T       | 32        | 64        | 14        | 46        | 74        | 16        |
| 19   | 7.5T       | 38        | 76        | 14        | 51        | 89        | 19        |
| 22   | 9.6T       | 44        | 90        | 13        | 60        | 106       | 23        |
| 25   | 13T        | 50        | 101       | 20        | 70        | 122       | 25.5      |
| 28   | 15.75T     | 57        | 113       | 18        | 76        | 130       | 28        |
| 32   | 20T        | 64        | 128       | 19        | 85        | 145       | 32        |
| 35   | 23.63T     | 70        | 140       | 21        | 95        | 159       | 35        |
| 38   | 29T        | 76        | 152       | 22        | 100       | 170       | 38        |
| 44   | 39T        | 88        | 176       | 26        | 120       | 200       | 44        |
| 50   | 50T        | 100       | 200       | 30        | 140       | 230       | 50        |



# 3.5

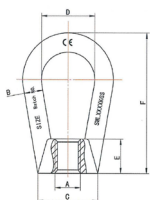
# Eyebolt

## G291 Forged Eye Bolt



| SIZE<br>in | WLL<br>ton | A<br>mm | B<br>mm | C<br>mm | D<br>mm | E<br>mm | F<br>mm | G<br>mm | H<br>mm | Weight<br>kg/100pcs |
|------------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------------------|
| 1/4x2      | 0.29       | 6.35    | 12.7    | 25.4    | 6.35    | 38.1    | 51.0    | 77.5    | 14.2    | 3.72                |
| 1/4x4      | 0.29       | 6.35    | 12.7    | 25.4    | 6.35    | 63.5    | 102     | 129     | 14.2    | 5.31                |
| 5/16x2.1/4 | 0.54       | 7.85    | 15.7    | 31.8    | 7.85    | 38.1    | 57.0    | 90.5    | 17.5    | 6.03                |
| 5/16x4.1/4 | 0.54       | 7.85    | 15.7    | 31.8    | 7.85    | 63.5    | 108     | 141     | 17.5    | 11.3                |
| 3/8x2.1/2  | 0.70       | 9.65    | 19.1    | 38.1    | 9.65    | 38.1    | 63.5    | 105     | 22.4    | 10.6                |
| 3/8x4.1/2  | 0.70       | 9.65    | 19.1    | 38.1    | 9.65    | 63.5    | 114     | 155     | 22.4    | 13.4                |
| 3/8x6      | 0.70       | 9.65    | 19.1    | 38.1    | 9.65    | 63.5    | 152     | 194     | 22.4    | 16.0                |
| 1/2x3.1/4  | 1.18       | 12.7    | 25.4    | 51.0    | 12.7    | 38.1    | 82.5    | 137     | 28.4    | 22.8                |
| 1/2x6      | 1.18       | 12.7    | 25.4    | 51.0    | 12.7    | 76.0    | 152     | 206     | 28.4    | 30.0                |
| 1/2x8      | 1.18       | 12.7    | 25.4    | 51.0    | 12.7    | 76.0    | 203     | 257     | 28.4    | 37                  |
| 1/2x10     | 1.18       | 12.7    | 25.4    | 51.0    | 12.7    | 76.0    | 254     | 308     | 28.4    | 40                  |
| 1/2x12     | 1.18       | 12.7    | 25.4    | 51.0    | 12.7    | 76.0    | 305     | 359     | 28.4    | 52                  |
| 5/8x4      | 2.35       | 15.7    | 31.8    | 63.5    | 15.7    | 51.0    | 102     | 170     | 36.6    | 47                  |
| 5/8x6      | 2.35       | 15.7    | 31.8    | 63.5    | 15.7    | 76.0    | 152     | 221     | 36.6    | 54                  |
| 5/8x8      | 2.35       | 15.7    | 31.8    | 63.5    | 15.7    | 76.0    | 203     | 272     | 36.6    | 61                  |
| 5/8x10     | 2.35       | 15.7    | 31.8    | 63.5    | 15.7    | 76.0    | 254     | 322     | 36.6    | 70                  |
| 5/8x12     | 2.35       | 15.7    | 31.8    | 63.5    | 15.7    | 102     | 305     | 373     | 36.6    | 76                  |
| 3/4x4.1/2  | 3.26       | 19.1    | 38.1    | 76.0    | 19.1    | 51.0    | 114     | 195     | 42.9    | 76                  |
| 3/4x6      | 3.26       | 19.1    | 38.1    | 76.0    | 19.1    | 76.0    | 152     | 233     | 42.9    | 84                  |
| 3/4x8      | 3.26       | 19.1    | 38.1    | 76.0    | 19.1    | 76.0    | 203     | 284     | 42.9    | 94                  |
| 3/4x10     | 3.26       | 19.1    | 38.1    | 76.0    | 19.1    | 76.0    | 254     | 335     | 42.9    | 107                 |
| 3/4x12     | 3.26       | 19.1    | 38.1    | 76.0    | 19.1    | 102     | 305     | 386     | 42.9    | 117                 |
| 3/4x15     | 3.26       | 19.1    | 38.1    | 76.0    | 19.1    | 127     | 381     | 462     | 42.9    | 135                 |
| 7/8x5      | 4.80       | 22.4    | 44.5    | 89.0    | 22.4    | 63.5    | 127     | 222     | 51.0    | 122                 |
| 7/8x8      | 4.80       | 22.4    | 44.5    | 89.0    | 22.4    | 102     | 203     | 298     | 51.0    | 140                 |
| 7/8x12     | 4.80       | 22.4    | 44.5    | 89.0    | 22.4    | 102     | 305     | 400     | 51.0    | 181                 |
| 1x6        | 6.03       | 25.4    | 51.0    | 102     | 25.4    | 76.0    | 152     | 262     | 58.5    | 191                 |
| 1x9        | 6.03       | 25.4    | 51.0    | 102     | 25.4    | 102     | 229     | 338     | 58.5    | 213                 |
| 1x12       | 6.03       | 25.4    | 51.0    | 102     | 25.4    | 102     | 305     | 414     | 58.5    | 245                 |
| 1x18       | 6.03       | 25.4    | 51.0    | 102     | 25.4    | 178     | 457     | 567     | 58.5    | 295                 |
| 1.1/4x8    | 9.52       | 31.8    | 63.5    | 127     | 31.8    | 102     | 203     | 340     | 73.0    | 340                 |
| 1.1/4x12   | 9.52       | 31.8    | 63.5    | 127     | 31.8    | 102     | 305     | 441     | 73.0    | 408                 |
| 1.1/4x20   | 9.52       | 31.8    | 63.5    | 127     | 31.8    | 152     | 508     | 645     | 73.0    | 549                 |

## Bownut Generally to B.S.3974-Part 1-1974

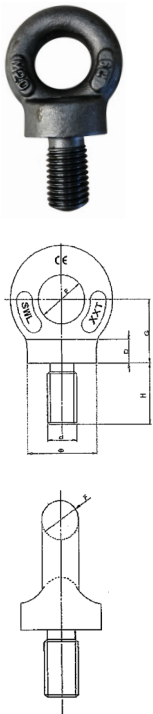


| Safety Working Load(t) | A (mm) | B (mm) | C (mm) | D (mm) | E (mm) | F (mm) |
|------------------------|--------|--------|--------|--------|--------|--------|
| 0.23                   | M8     | 10     | 32     | 25     | 16     | 64     |
| 0.36                   | M10    | 10     | 32     | 25     | 16     | 64     |
| 0.53                   | M12    | 12     | 38     | 30     | 17     | 73     |
| 1.01                   | M16    | 12     | 38     | 30     | 17     | 73     |
| 1.58                   | M20    | 14     | 45     | 40     | 25     | 102    |
| 2.28                   | M24    | 17     | 50     | 50     | 29     | 124    |
| 3.65                   | M30    | 26     | 70     | 75     | 29     | 149    |
| 5.34                   | M36    | 26     | 70     | 75     | 29     | 149    |

# 3.5

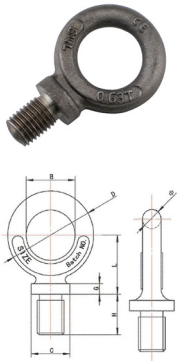
# Eyebolt

## Drop Forged Collared Eyebolt B.S.4278-Table 1-1984



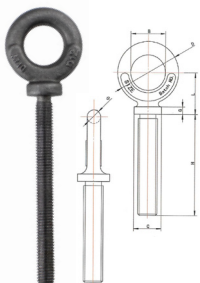
| SIZE | WLL<br>(t) | E<br>(mm) | D<br>(mm) | Φ<br>(mm) | H<br>(mm) | G<br>(mm) | F<br>(mm) |
|------|------------|-----------|-----------|-----------|-----------|-----------|-----------|
| M6   | 0.1        | 15        | 7         | 22        | 18        | 20        | 9         |
| M8   | 0.15       | 15        | 7         | 22        | 19.5      | 20        | 9         |
| M10  | 0.33       | 15        | 7         | 22        | 19.5      | 20        | 9         |
| M12  | 0.4        | 15        | 7         | 22        | 19.5      | 20        | 9         |
| M14  | 0.5        | 20        | 10        | 29        | 23        | 26        | 12        |
| M16  | 0.8        | 20        | 10        | 29        | 24.5      | 26        | 12        |
| M18  | 1.2        | 27        | 14        | 40        | 29.5      | 36        | 16        |
| M20  | 1.6        | 27        | 14        | 40        | 33.5      | 36        | 16        |
| M22  | 1.6        | 30        | 14        | 45        | 35        | 41        | 17        |
| M24  | 2.5        | 35        | 17        | 52        | 41.5      | 46        | 21        |
| M30  | 4          | 44        | 22        | 65        | 51        | 58        | 26        |
| M33  | 4          | 48        | 24        | 72        | 56        | 64        | 29        |
| M36  | 6.3        | 54        | 27        | 81        | 63        | 72        | 32        |
| M27  | 2.5        | 39        | 20        | 58        | 46        | 51.5      | 23        |
| M39  | 6.3        | 57        | 29        | 86        | 67        | 75.5      | 33        |
| M42  | 8          | 68        | 34        | 101       | 79        | 90        | 40        |
| M45  | 8          | 68        | 34        | 101       | 79        | 90        | 40        |
| M48  | 10         | 68        | 34        | 101       | 79        | 90        | 40        |
| M52  | 12.5       | 76        | 38        | 115       | 89        | 102       | 46        |
| M56  | 16         | 86        | 43        | 128       | 100       | 114       | 51        |
| M64  | 20         | 96        | 48        | 144       | 112       | 128       | 58        |

## Drop Forged Dynamo Eyebolt B.S.4278-Table 3-1984



| SIZE | WLL<br>(t) | D<br>(mm) | B<br>(mm) | L<br>(mm) | C<br>(mm) | G<br>(mm) | Φ<br>(mm) | H<br>(mm) |
|------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| M8   | 0.15       | 40        | 22        | 27        | 17        | 5         | 9         | 18.5      |
| M10  | 0.25       | 40        | 22        | 27        | 17        | 5         | 9         | 18.5      |
| M12  | 0.32       | 40        | 22        | 27        | 17        | 5         | 9         | 18.5      |
| M16  | 0.63       | 51        | 29        | 34        | 23        | 6         | 11        | 23.5      |
| M18  | 1          | 70        | 40        | 47        | 32        | 9         | 15        | 33        |
| M20  | 1.25       | 70        | 40        | 47        | 32        | 9         | 15        | 33        |
| M22  | 1.6        | 89        | 51        | 60        | 40        | 12        | 19        | 41        |
| M24  | 2          | 89        | 51        | 60        | 40        | 12        | 19        | 41        |
| M30  | 3.2        | 112       | 64        | 76        | 51        | 14        | 24        | 51        |

## Drop Forged Long Shank Dynamo Eyebolt

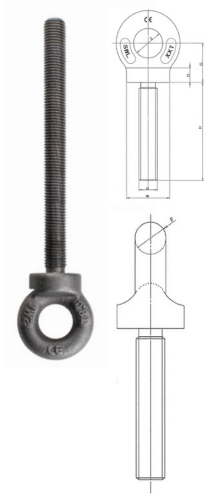


| SIZE | WLL<br>(t) | D<br>(mm) | B<br>(mm) | L<br>(mm) | C<br>(mm) | G<br>(mm) | Φ<br>(mm) | H<br>(mm) |
|------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| M8   | 0.16       | 41        | 22        | 27        | 19        | 6         | 9.5       | 100       |
| M10  | 0.25       | 41        | 22        | 27        | 19        | 6         | 9.5       | 100       |
| M12  | 0.32       | 51        | 29        | 35        | 25        | 8         | 11        | 100       |
| M16  | 0.63       | 58        | 32        | 41        | 29        | 9.5       | 13        | 114       |
| M20  | 1.25       | 73        | 41        | 54        | 35        | 11        | 16        | 127       |
| M24  | 2          | 89        | 51        | 64        | 41        | 13        | 19        | 127       |

## 3.5

## Eyebolt

### Drop Forged Long Shank Collared Eyebolt

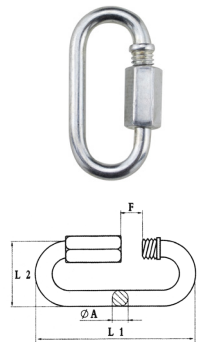


| SIZE | WLL (t) | E (mm) | D (mm) | Φ (mm) | H (mm) | G (mm) | F (mm) |
|------|---------|--------|--------|--------|--------|--------|--------|
| M10  | 0.25    | 15     | 7      | 22     | 178    | 19.5   | 9      |
| M12  | 0.4     | 19     | 11     | 28     | 178    | 24.5   | 11     |
| M14  | 0.5     | 24     | 14     | 36     | 178    | 32     | 14     |
| M16  | 0.8     | 24     | 14     | 36     | 178    | 32     | 14     |
| M18  | 1       | 29     | 17     | 43     | 178    | 38     | 16.5   |
| M20  | 1.6     | 29     | 17     | 43     | 178    | 38     | 16.5   |
| M22  | 1.6     | 33     | 17     | 50     | 178    | 37.5   | 20     |
| M24  | 2.5     | 38     | 19     | 57     | 178    | 46     | 22     |
| M30  | 4       | 48     | 24     | 71     | 178    | 64     | 28     |

## 3.6

## Snap Hook

### Quick Link, Zinc Plated

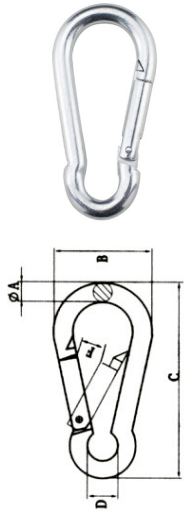


| SIZE | ØA mm | L1 mm | L2 mm | F mm | W.L.L LBS |
|------|-------|-------|-------|------|-----------|
| 3    | 3     | 30.5  | 15    | 4.3  | -         |
| 3.5  | 3.5   | 36.5  | 17    | 5    | 220       |
| 4    | 4     | 40    | 19.5  | 5.5  | -         |
| 5    | 5     | 49    | 23    | 6.5  | 660       |
| 6    | 6     | 58    | 26.5  | 7.5  | 880       |
| 7    | 7     | 65    | 30.5  | 8.5  | 1300      |
| 8    | 8     | 75    | 33.5  | 10.5 | 1760      |
| 9    | 9     | 82    | 35    | 11.5 | 2200      |
| 10   | 10    | 90    | 40.5  | 12.5 | 2640      |
| 11   | 11    | 99    | 44    | 13   | -         |
| 12   | 12    | 107   | 47.5  | 14.5 | 3300      |
| 14   | 14    | 125   | 54.5  | 17   | 6100      |
| 16   | 16    | 144   | 61.5  | 20   | -         |

## 3.6

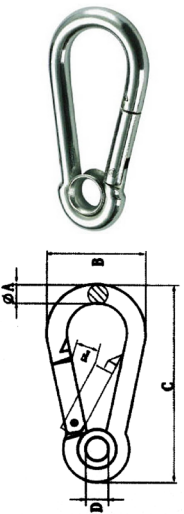
## Snap Hook

### Snap Hook, Zinc Plated



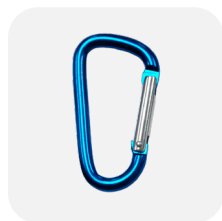
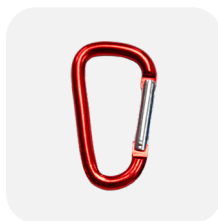
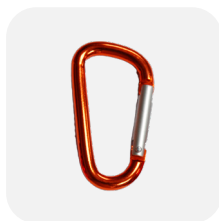
| SIZE<br>mm | ØA<br>mm | B<br>mm | C<br>mm | D<br>mm | F<br>mm | W.L.L<br>LBS |
|------------|----------|---------|---------|---------|---------|--------------|
| 3x30       | 3        | 15      | 30      | 5       | 5.5     | -            |
| 4x40       | 4        | 20      | 40      | 7       | 7       | 200          |
| 5x50       | 5        | 25      | 50      | 8       | 7       | 220          |
| 6x60       | 6        | 30      | 60      | 9       | 8       | 260          |
| 7x70       | 7        | 35      | 70      | 10      | 8       | 400          |
| 8x80       | 8        | 40      | 80      | 12      | 9       | 500          |
| 9x90       | 9        | 45      | 90      | 12      | 10      | 550          |
| 10x100     | 10       | 50      | 100     | 15      | 11      | 770          |
| 11x120     | 11       | 57      | 120     | 18      | 16      | 990          |
| 12x140     | 12       | 67      | 140     | 20      | 19      | 1200         |
| 13x160     | 13       | 74      | 160     | 22      | 25      | 1400         |
| 14x180     | 14       | 86      | 180     | 22      | 35      | 1600         |
| 15x200     | 15       | 96      | 200     | 26      | 37      | 1800         |

### Snap Hook with Eyelet, Zinc Plated



| SIZE<br>mm | ØA<br>mm | B<br>mm | C<br>mm | D<br>mm | F<br>mm | W.L.L<br>LBS |
|------------|----------|---------|---------|---------|---------|--------------|
| 4x40       | 4        | 20      | 40      | 4       | 7       | 200          |
| 5x50       | 5        | 25      | 50      | 5       | 7       | 220          |
| 6x60       | 6        | 30      | 60      | 5       | 8       | 260          |
| 7x70       | 7        | 35      | 70      | 7       | 8       | 400          |
| 8x80       | 8        | 40      | 80      | 10      | 9       | 500          |
| 9x90       | 9        | 45      | 90      | 12      | 10      | 550          |
| 10x100     | 10       | 50      | 100     | 13      | 11      | 770          |
| 11x120     | 11       | 57      | 120     | 13      | 16      | 990          |
| 12x140     | 12       | 67      | 140     | 15      | 19      | 1200         |
| 13x160     | 13       | 74      | 160     | 17      | 25      | 1400         |
| 14x180     | 14       | 86      | 180     | 17      | 35      | 1600         |

### Aluminium Snap Hook

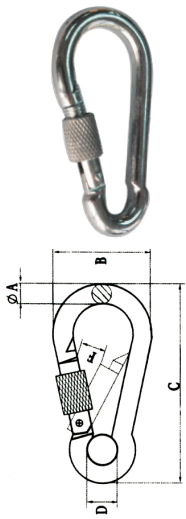




## 3.6

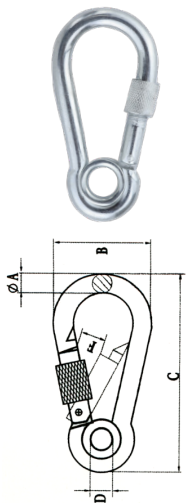
## Snap Hook

### Snap Hook with Screw, Zinc Plated



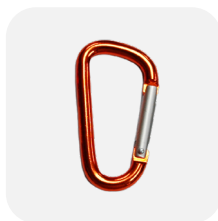
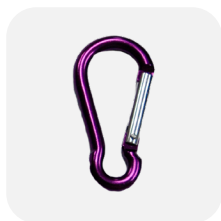
| SIZE<br>mm | ØA<br>mm | B<br>mm | C<br>mm | D<br>mm | F<br>mm | W.L.L<br>LBS |
|------------|----------|---------|---------|---------|---------|--------------|
| 4x40       | 4        | 20      | 40      | 7       | 7       | 200          |
| 5x50       | 5        | 25      | 50      | 8       | 7       | 220          |
| 6x60       | 6        | 30      | 60      | 9       | 8       | 260          |
| 7x70       | 7        | 35      | 70      | 10      | 8       | 400          |
| 8x80       | 8        | 40      | 80      | 12      | 9       | 500          |
| 9x90       | 9        | 45      | 90      | 12      | 10      | 550          |
| 10x100     | 10       | 50      | 100     | 15      | 11      | 770          |
| 11x120     | 11       | 57      | 120     | 18      | 16      | 990          |
| 12x140     | 12       | 67      | 140     | 20      | 19      | 1200         |
| 13x160     | 13       | 74      | 160     | 22      | 25      | 1400         |
| 14x180     | 14       | 86      | 180     | 22      | 35      | 1600         |

### Snap Hook with Eyelet and Screw, Zinc Plated



| SIZE<br>mm | ØA<br>mm | B<br>mm | C<br>mm | D<br>mm | F<br>mm | W.L.L<br>LBS |
|------------|----------|---------|---------|---------|---------|--------------|
| 5x50       | 5        | 25      | 50      | 5       | 7       | 220          |
| 6x60       | 6        | 30      | 60      | 5       | 8       | 260          |
| 7x70       | 7        | 35      | 70      | 7       | 8       | 400          |
| 8x80       | 8        | 40      | 80      | 10      | 9       | 500          |
| 9x90       | 9        | 45      | 90      | 12      | 10      | 550          |
| 10x100     | 10       | 50      | 100     | 13      | 11      | 770          |
| 11x120     | 11       | 57      | 120     | 13      | 16      | 990          |
| 12x140     | 12       | 67      | 140     | 15      | 19      | 1200         |
| 13x160     | 13       | 74      | 160     | 17      | 25      | 1400         |
| 14x180     | 14       | 86      | 180     | 17      | 35      | 1600         |

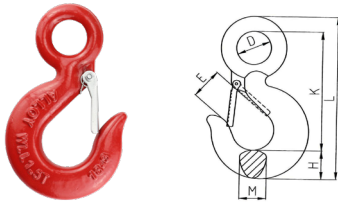
### Aluminium Snap Hook



## 3.7

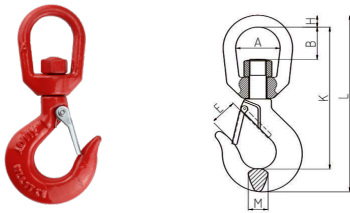
## G70 Hook and Link

## 320A Eye Hoist Hook



| ITEM NO.     | WEIGHT (kg) | ALLOY   |         | CARBON  |         | D±1  | E±2  | H±1.5 | K±2.5 | L±3   | M±1.5 |
|--------------|-------------|---------|---------|---------|---------|------|------|-------|-------|-------|-------|
|              |             | WLL (T) | B.L (T) | WLL (T) | B.L (T) |      |      |       |       |       |       |
| A0.75T/C0.5T | 0.21        | 0.75    | 3.75    | 0.5     | 2.5     | 16.5 | 18   | 17    | 72    | 97    | 16    |
| A1T/C0.75T   | 0.27        | 1       | 5       | 0.75    | 3.75    | 19   | 22   | 20.5  | 82    | 112   | 16    |
| A1.5T/C1T    | 0.4         | 1.5     | 7.5     | 1       | 5       | 23   | 24.5 | 21.5  | 94    | 126   | 17.5  |
| A2T/C1.5T    | 0.6         | 2       | 10      | 1.5     | 7.5     | 28   | 25   | 26    | 104.5 | 142   | 21    |
| A3T/C2T      | 0.84        | 3       | 15      | 2       | 10      | 31   | 27   | 28    | 120   | 163   | 23    |
| A5T/C3T      | 1.81        | 5       | 25      | 3       | 15      | 39   | 35.5 | 40    | 146   | 203   | 33    |
| A7T/C5T      | 3.35        | 7       | 35      | 5       | 25      | 51   | 44   | 45    | 187.5 | 255   | 38    |
| A11T/C7.5T   | 6.1         | 11      | 55      | 7.5     | 37.5    | 62   | 55   | 57    | 231.5 | 317   | 46    |
| A15T/C10T    | 9.6         | 15      | 75      | 10      | 50      | 73   | 57   | 66    | 262   | 360   | 55    |
| A22T/C15T    | 16          | 22      | 110     | 15      | 75      | 89   | 83   | 79.6  | 318   | 433   | 68.5  |
| A30T/C20T    | 25.8        | 30      | 150     | 20      | 100     | 90   | 95   | 91    | 360   | 495.5 | 70    |

## 322A Swivel Hoist Hook

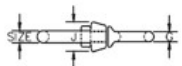
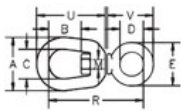


| ITEM NO.     | WEIGHT (kg) | ALLOY   |         | CARBON  |         | A±1  | B±2  | E±2  | H±0.6 | K±4   | L±5   | M±1  |
|--------------|-------------|---------|---------|---------|---------|------|------|------|-------|-------|-------|------|
|              |             | WLL (T) | B.L (T) | WLL (T) | B.L (T) |      |      |      |       |       |       |      |
| A0.75T/C0.5T | 0.3         | 0.75    | 3.375   | 0.5     | 2.5     | 32   | 22.5 | 17   | 9     | 110   | 137   | 15   |
| A1T/C0.75T   | 0.34        | 1       | 4.5     | 0.75    | 3.75    | 32   | 22.5 | 17   | 9     | 108   | 136   | 16   |
| A1.5T/C1T    | 0.64        | 1.5     | 6.75    | 1       | 5       | 37.5 | 29.5 | 22.5 | 12    | 130   | 163.5 | 17.5 |
| A2T/C1.5T    | 1.05        | 2       | 9       | 1.5     | 7.5     | 42.5 | 33   | 21.5 | 15.8  | 150   | 192   | 21   |
| A3T/C2T      | 1.24        | 3       | 13.5    | 2       | 10      | 42.5 | 33   | 26   | 15.8  | 163   | 209   | 23   |
| A5T/C3T      | 3.98        | 5       | 22.5    | 3       | 15      | 48   | 39   | 32.5 | 18    | 191   | 246   | 33   |
| A7T/C5T      | 4           | 7       | 31.5    | 5       | 25      | 64   | 53   | 43   | 21.5  | 243.5 | 313   | 34   |
| A11T/C7.5T   | 7.09        | 11      | 49.5    | 7.5     | 37.5    | 68   | 53   | 49.5 | 26    | 277   | 364   | 41.5 |
| A15T/C10T    | 12.77       | 15      | 67.5    | 10      | 50      | 79   | 62   | 54.5 | 32    | 332   | 431   | 55.7 |
| A22T/C15T    | 24.5        | 22      | 99      | 15      | 75      | 105  | 108  | 87   | 40    | 427   | 543   | 70   |
| A30T/C20T    | 34.5        | 30      | 135     | 20      | 100     | 105  | 96   | 97.5 | 40    | 465   | 596   | 76.2 |

## 3.7

## G70 Hook and Link

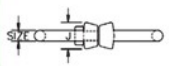
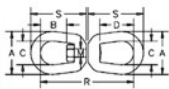
## G-401 Chain Swivel



| SIZE<br>(inch) | WLL<br>(lbs) | WEIGHT<br>(kg) | Dimensions(mm) |      |      |      |      |      |      |      |       |      |      |
|----------------|--------------|----------------|----------------|------|------|------|------|------|------|------|-------|------|------|
|                |              |                | A              | B    | C    | D    | E    | G    | J    | M    | R     | U    | V    |
| 1/4            | 850          | 0.06           | 31.8           | 17.5 | 19.1 | 15.7 | 28.4 | 6.35 | 17.5 | 7.85 | 57.0  | 42.9 | 31.8 |
| 5/16           | 1250         | 0.11           | 6.35           | 41.4 | 20.6 | 25.4 | 19.1 | 35.1 | 7.85 | 20.6 | 69.0  | 52.5 | 37.3 |
| 3/8            | 2250         | 0.24           | 51.0           | 23.9 | 31.8 | 25.4 | 44.5 | 9.65 | 25.4 | 12.7 | 87.5  | 63.5 | 47.8 |
| 1/2            | 3600         | 0.51           | 63.5           | 33.3 | 38.1 | 31.8 | 57.0 | 12.7 | 33.3 | 16.0 | 108   | 81.0 | 62.0 |
| 5/8            | 5200         | 0.95           | 76.2           | 39.6 | 44.5 | 38.1 | 70.0 | 15.8 | 38.1 | 19.1 | 130   | 98.5 | 74.5 |
| 3/4            | 7200         | 1.40           | 89.0           | 44.5 | 51.0 | 44.5 | 82.5 | 19.1 | 47.8 | 22.4 | 147   | 125  | 88.0 |
| 1              | 12500        | 3.3            | 112.7          | 57   | 61.5 | 61.5 | 115  | 21.2 | 56.7 | 29.3 | 214.8 | 146  | 119  |

Meets the performance requirements of Federal Specification RR-C-271D, Type VII, Class 1, except for those provisions required of the contractor.  
Ultimate load is 5 times of Working Load Limit.

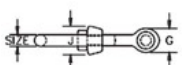
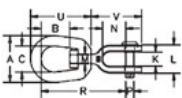
## G-402 Regular Swivel



| SIZE<br>(inch) | WLL<br>(lbs) | WEIGHT<br>(kg) | Dimensions(mm) |      |      |      |      |      |      |      |
|----------------|--------------|----------------|----------------|------|------|------|------|------|------|------|
|                |              |                | A              | B    | C    | D    | J    | M    | R    | S    |
| 1/4            | 850          | 0.10           | 31.8           | 17.5 | 19.1 | 26.9 | 17.5 | 7.85 | 74.5 | 42.9 |
| 5/16           | 1250         | 0.18           | 41.4           | 20.6 | 25.4 | 31.8 | 20.6 | 9.65 | 90.0 | 52.0 |
| 3/8            | 2250         | 0.32           | 51.0           | 23.9 | 31.8 | 38.1 | 25.4 | 12.7 | 109  | 63.5 |
| 1/2            | 3600         | 0.60           | 63.5           | 33.3 | 38.1 | 51.0 | 33.3 | 16.0 | 138  | 81.0 |
| 5/8            | 5200         | 1.13           | 76.0           | 39.5 | 44.5 | 60.5 | 38.1 | 19.1 | 167  | 98.5 |
| 3/4            | 7200         | 1.82           | 89.0           | 44.5 | 51.0 | 67.0 | 47.8 | 22.4 | 183  | 109  |
| 7/8            | 10000        | 2.83           | 102            | 52.0 | 57.0 | 77.5 | 54.0 | 25.4 | 213  | 127  |
| 1              | 12500        | 4.06           | 114            | 58.5 | 63.5 | 89.0 | 60.5 | 28.7 | 245  | 146  |
| 1.1/4          | 18000        | 7.42           | 143            | 68.5 | 79.5 | 93.5 | 76.0 | 41.4 | 291  | 172  |
| 1.1/2          | 45200        | 20.8           | 178            | 98.5 | 102  | 106  | 102  | 57.0 | 435  | 254  |

Meets the performance requirements of Federal Specification RR-C-271D, Type VII, Class 2, except for those provisions required of the contractor.  
Ultimate load is 5 times of Working Load Limit.

## G-403 Jaw Swivel



| SIZE<br>(inch) | WLL<br>(lbs) | WEIGHT<br>(kg) | Dimensions(mm) |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|--------------|----------------|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
|                |              |                | A              | B    | C    | G    | J    | K    | L    | M    | N    | P    | R    | U    | V    |
| 1/4            | 850          | 0.10           | 31.8           | 17.5 | 19.1 | 17.5 | 17.5 | 11.9 | 26.2 | 7.85 | 22.4 | 6.35 | 67.0 | 42.9 | 42.9 |
| 5/16           | 1250         | 0.15           | 41.4           | 20.6 | 25.4 | 20.6 | 20.6 | 12.7 | 28.7 | 9.65 | 22.4 | 7.85 | 74.5 | 52.0 | 46.0 |
| 3/8            | 2250         | 0.30           | 51.0           | 23.9 | 31.8 | 25.4 | 25.4 | 16.0 | 35.8 | 12.7 | 26.9 | 9.65 | 92.0 | 63.5 | 57.0 |
| 1/2            | 3600         | 0.61           | 63.5           | 33.3 | 38.1 | 33.3 | 33.3 | 19.1 | 44.5 | 16.0 | 33.3 | 12.7 | 114  | 81.0 | 73.0 |
| 5/8            | 5200         | 1.12           | 76.0           | 39.5 | 44.5 | 41.4 | 38.1 | 23.9 | 52.0 | 19.1 | 38.1 | 16.0 | 135  | 98.5 | 87.5 |
| 3/4            | 7200         | 1.76           | 89.0           | 44.5 | 51.0 | 47.8 | 47.8 | 28.7 | 64.5 | 22.4 | 44.5 | 19.1 | 154  | 109  | 102  |
| 7/8            | 10000        | 2.66           | 102            | 52.0 | 57.0 | 54.0 | 54.0 | 30.2 | 70.0 | 25.4 | 52.0 | 22.4 | 178  | 127  | 115  |
| 1              | 12500        | 4.46           | 114            | 58.5 | 63.5 | 67.0 | 60.5 | 44.5 | 94.5 | 28.7 | 71.5 | 28.7 | 217  | 146  | 151  |
| 1.1/4          | 18000        | 7.14           | 145            | 68.5 | 79.5 | 79.5 | 76.0 | 52.0 | 109  | 41.4 | 71.5 | 35.1 | 248  | 179  | 162  |
| 1.1/2          | 45200        | 24.8           | 178            | 98.5 | 102  | 143  | 102  | 73.0 | 152  | 57.0 | 113  | 57.0 | 374  | 254  | 275  |

Meets the performance requirements of Federal Specification RR-C-271D, Type VII, Class 3, except for those provisions required of the contractor.  
Ultimate load is 5 times of Working Load Limit.

## 3.8

## G30/G43 Chain

## DIN766 Short Link Chain



| SIZE (d) |       | INSIDE LENGTH(t) |     |      | INSIDE WIDTH (b1) | OUTSIDE WIDTH (b2) | LENGTH PER 11 LINKS |      |     | WEIGHT PER M | BREAKING LOAD |
|----------|-------|------------------|-----|------|-------------------|--------------------|---------------------|------|-----|--------------|---------------|
| MM       | +/-MM | MM               | +MM | -MM  | MM                | MM                 | MM                  | +MM  | -MM | KG           | kN            |
| 2        | 0.2   | 12               | 0.2 | 0.2  | 3.5               | 7.5                | 132                 | 1    | 0.5 | 0.07         | 1.25          |
| 3        | 0.2   | 16               | 0.2 | 0.2  | 4.2               | 11                 | 176                 | 1.4  | 0.7 | 0.16         | 4             |
| 4        | 0.2   | 16               | 0.3 | 0.2  | 5                 | 13.7               | 176                 | 2.1  | 1.1 | 0.32         | 8             |
| 5        | 0.2   | 18.5             | 0.4 | 0.2  | 6                 | 17                 | 203.5               | 2.4  | 1.2 | 0.5          | 12.5          |
| 6        | 0.2   | 18.5             | 0.4 | 0.2  | 7.2               | 20.2               | 203.5               | 2.4  | 1.2 | 0.8          | 16            |
| 7        | 0.3   | 22               | 0.4 | 0.2  | 8.4               | 23.8               | 242                 | 3    | 1.4 | 1.1          | 25            |
| 8        | 0.3   | 24               | 0.4 | 0.2  | 9.6               | 27.2               | 264                 | 3.2  | 1.5 | 1.4          | 32            |
| 9        | 0.4   | 27               | 0.5 | 0.3  | 10.8              | 30.6               | 297                 | 3.6  | 1.8 | 1.8          | 40            |
| 10       | 0.4   | 28               | 0.5 | 0.3  | 12                | 34                 | 308                 | 3.7  | 1.9 | 2.2          | 50            |
| 11       | 0.4   | 31               | 0.5 | 0.3  | 13.2              | 37.4               | 341                 | 4    | 2   | 2.7          | 63            |
| 12       | 0.3   | 36               | 0.6 | 0.3  | 14.4              | 40.8               | 396                 | 4.4  | 2.2 | 3.1          | 72.4          |
| 13       | 0.5   | 36               | 0.6 | 0.3  | 15.6              | 44.2               | 396                 | 4.6  | 2.4 | 3.8          | 80            |
| 14       | 0.6   | 41               | 0.7 | 0.4  | 16.8              | 47.6               | 451                 | 5.4  | 2.7 | 4.4          | 100           |
| 16       | 0.6   | 45               | 0.8 | 0.4  | 19.2              | 54.4               | 495                 | 6    | 3   | 5.7          | 125           |
| 18       | 0.9   | 50               | 0.8 | 0.4  | 21.6              | 61.2               | 550                 | 6.6  | 3.3 | 7.3          | 160           |
| 19       | 0.4   | 53               | 0.9 | 0.4  | 22.8              | 64.6               | 583                 | 7    | 3.7 | 7.97         | 180           |
| 20       | 1     | 56               | 1   | 0.5  | 24                | 68                 | 616                 | 7.4  | 3.7 | 9            | 200           |
| 22       | 1.2   | 62               | 1.1 | 0.5  | 26.4              | 75                 | 682                 | 8    | 4   | 11           | 243.2         |
| 23       | 1.2   | 64               | 1.1 | 0.5  | 27.6              | 78.2               | 704                 | 8.4  | 4.2 | 12           | 250           |
| 26       | 1.3   | 73               | 1.2 | 0.6  | 31.2              | 88.4               | 803                 | 9.6  | 4.8 | 15           | 320           |
| 28       | 1.4   | 78               | 1.3 | 0.65 | 33.8              | 95.2               | 858                 | 10.2 | 5.1 | 18           | 400           |
| 30       | 1.5   | 84               | 1.4 | 0.7  | 41                | 102                | 924                 | 11   | 5.5 | 19.5         | 450           |
| 32       | 1.6   | 90               | 1.5 | 0.75 | 43                | 108.8              | 990                 | 11.8 | 5.9 | 23           | 500           |

## DIN763 Long Link Chain



| SIZE(d) |       | INSIDE LENGTH(t) |       | OUTSIDE WIDTH(b) |       | WORKING LOAD | TEST LOAD | BREAKING LOAD | WEIGHT PER M |
|---------|-------|------------------|-------|------------------|-------|--------------|-----------|---------------|--------------|
| MM      | +/-MM | MM               | +/-MM | MM               | +/-MM | KG           | N         | N             | KG           |
| 2       | 0.5   | 22               | 1     | 8                | 0.4   | 25           | 800       | 1250          | 0.06         |
| 2.5     | 0.5   | 24               | 1.1   | 10               | 0.5   | 40           | 800       | 2000          | 0.1          |
| 3       | 0.5   | 26               | 1.2   | 12               | 0.6   | 55           | 1050      | 3200          | 0.15         |
| 3.5     | 0.5   | 28               | 1.3   | 14               | 0.7   | 80           | 1540      | 3850          | 0.2          |
| 4       | 0.5   | 32               | 1.5   | 16               | 0.8   | 100          | 2500      | 6500          | 0.27         |
| 4.5     | 0.5   | 34               | 1.7   | 18               | 0.9   | 128          | 3000      | 8000          | 0.35         |
| 5       | 0.5   | 35               | 1.8   | 20               | 1     | 160          | 4000      | 10000         | 0.43         |
| 5.5     | 0.5   | 38.5             | 1.8   | 22               | 1.1   | 195          | 4200      | 10500         | 0.52         |
| 6       | 0.5   | 42               | 2     | 24               | 1.2   | 200          | 5000      | 12000         | 0.63         |
| 7       | 0.5   | 49               | 2.5   | 28               | 1.4   | 300          | 7500      | 19000         | 0.86         |
| 8       | 0.5   | 52               | 2.5   | 32               | 1.6   | 400          | 10000     | 25000         | 1.1          |
| 8.5     | 0.5   | 56               | 2.8   | 34               | 1.7   | 460          | 10200     | 25500         | 1.25         |
| 9       | 0.5   | 59               | 3     | 36               | 1.8   | 530          | 10500     | 32000         | 1.41         |
| 10      | 1     | 65               | 3.2   | 40               | 2     | 630          | 16000     | 40000         | 1.75         |
| 11      | 1     | 72               | 3.4   | 44               | 2     | 790          | 15800     | 47500         | 2.1          |
| 12      | 1     | 78               | 3.6   | 48               | 2.3   | 940          | 18800     | 56500         | 2.55         |
| 13      | 1     | 82               | 4     | 52               | 2.5   | 1000         | 25000     | 63000         | 2.95         |
| 16      | 1     | 100              | 5     | 64               | 3.2   | 1600         | 40000     | 100000        | 4.45         |
| 18      | 1     | 113              | 5.2   | 70               | 3.2   | 2120         | 42300     | 127000        | 5.65         |
| 19      | 1     | 119              | 5.6   | 72               | 3.4   | 2370         | 47300     | 142000        | 6.26         |
| 20      | 1     | 120              | 6     | 75               | 3.8   | 2500         | 50000     | 160000        | 7            |
| 22      | 1     | 127              | 6     | 82               | 4     | 3170         | 63300     | 190000        | 8.55         |
| 25      | 1     | 140              | 6.6   | 85               | 4.2   | 4090         | 81700     | 245000        | 10.9         |
| 28      | 1     | 152              | 7     | 96               | 4.7   | 6000         | 120000    | 300000        | 13.9         |
| 32      | 1     | 171              | 7.8   | 108              | 5.2   | 8000         | 160000    | 400000        | 18.2         |



# 3.8

## G30/G43 Chain

### DIN5685A/C Short Link/Long Link Chain



| D SIZE | L INSIDE LENGTH | W OUTSIDE WIDTH | WEIGHT per 100M | PROOF TEST | BREAKING LOAD | GRADE |
|--------|-----------------|-----------------|-----------------|------------|---------------|-------|
| MM     | MM              | MM              | KG              | N          | N             |       |
| 2      | 12              | 8               | 7               | 500        | 1250          | A     |
|        | 22              |                 | 6               |            |               | C     |
| 2.5    | 14              | 10              | 11              | 750        | 2000          | A     |
|        | 24              |                 | 10              |            |               | C     |
| 3      | 16              | 12              | 16.5            | 1120       | 2800          | A     |
|        | 26              |                 | 15              |            |               | C     |
| 3.5    | 18              | 14              | 22.5            | 1500       | 3850          | A     |
|        | 28              |                 | 20              |            |               | C     |
| 4      | 19              | 16              | 30              | 2000       | 5000          | A     |
|        | 32              |                 | 27              |            |               | C     |
| 4.5    | 20              | 18              | 39.5            | 2500       | 6300          | A     |
|        | 34              |                 | 35              |            |               | C     |
| 5      | 21              | 20              | 50              | 3150       | 7750          | A     |
|        | 35              |                 | 43              |            |               | C     |
| 5.5    | 23              | 22              | 60.5            | 3800       | 9500          | A     |
|        | 38.5            |                 | 52              |            |               | C     |
| 6      | 24              | 24              | 73              | 4500       | 11500         | A     |
|        | 42              |                 | 63              |            |               | C     |
| 6.5    | 26              | 26              | 86              | 5400       | 13500         | A     |
|        | 45.5            |                 | 74              |            |               | C     |
| 7      | 28              | 28              | 100             | 6000       | 15000         | A     |
|        | 49              |                 | 86              |            |               | C     |
| 8      | 32              | 32              | 130             | 8000       | 20000         | A     |
|        | 52              |                 | 110             |            |               | C     |
| 8.5    | 34              | 34              | 149             | 9000       | 22500         | A     |
|        | 56              |                 | 125             |            |               | C     |
| 9      | 36              | 36              | 165             | 10000      | 25000         | A     |
|        | 59              |                 | 141             |            |               | C     |
| 10     | 40              | 40              | 205             | 12500      | 31000         | A     |
|        | 65              |                 | 175             |            |               | C     |
| 11     | 44              | 44              | 250             | 15000      | 38000         | A     |
|        | 72              |                 | 211             |            |               | C     |
| 12     | 48              | 48              | 290             | 18000      | 45000         | A     |
|        | 78              |                 | 255             |            |               | C     |
| 13     | 52              | 52              | 345             | 21200      | 53000         | A     |
|        | 82              |                 | 295             |            |               | C     |

## 3.9

## Steel Wire Rope

### Steel Wire rope

#### Wire Rope Cores

- Fiber Core (FC): This type of core is made from natural or synthetic fibers.
- Independent Wire Rope Core (IWRC): This type of core is used in applications requiring maximum strength, resistance to crushing and all applications for which fiber core ropes are not suitable.
- Stand Core (SC): This type of core would only be chosen for applications where “stiffness” of the rope is not a drawback but is in fact desirable.

#### Finishes

- To protect against friction and corrosion, proper lubrication of individual wires and strands plays an important role in the production of wire rope. Additional field lubrication may be required if the ropes are subjected to heavy usage or lengthy storage. The type of lubrication depends on the intended usage of the rope:

Type A-1 & A-2: Vaseline based lubricant, for light and medium duty applications

Type B: Petroleum based lubricant, for more severe applications

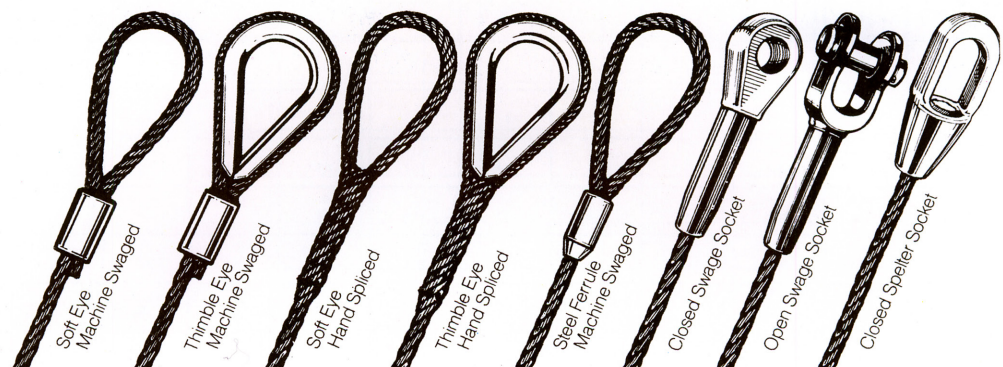
Type C: Asphalt based lubricant, often specified for non-rotating ropes

- For additional protection against premature corrosion, the individual wires of an uncoated rope (generally referred to as “bright” or “black”) are hot dip galvanized at finished size. This will reduce the breaking strength of the rope by approximately 10% from a comparable bright rope.
- Where wire ropes are subject to corrosive such as salt water, various acids, etc., stainless steel rope may have to be considered.

### Small packing wire rope



### Wire Rope Slings



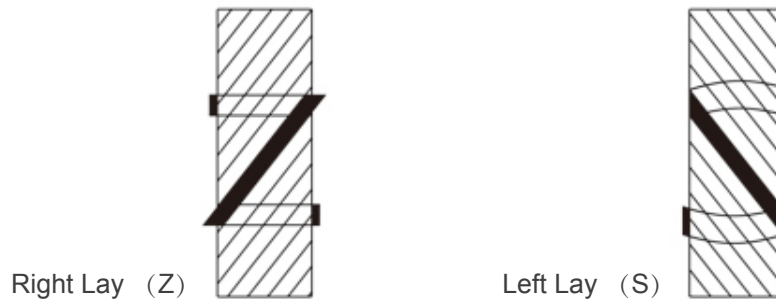
## 3.9

## Steel Wire Rope

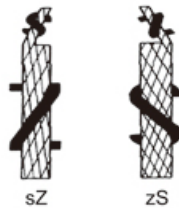
### Steel Wire rope

#### Wire Rope Lay

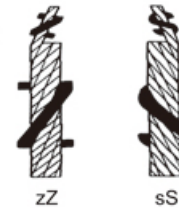
The term “rope lay” signifies the direction of rotation of the wires and the strands in the rope.



Regular Lay: Wires in strands are laid in one direction, while the strands in the rope are laid in the opposite direction.

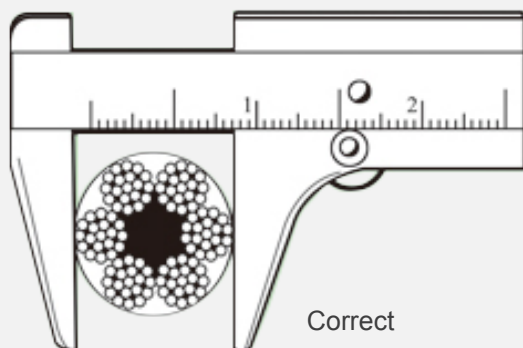


Lang Lay: Wires are laid in the same direction as the strands of the rope

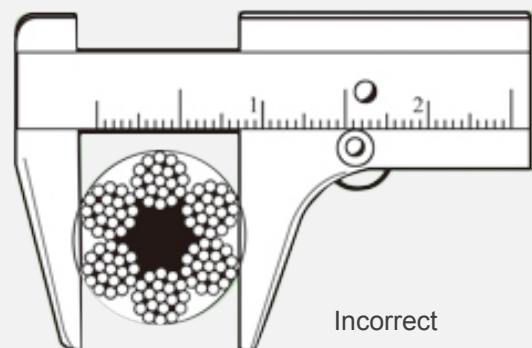


#### Measuring Wire Rope:

The diameter of a wire rope is the diameter of the circle which encloses all the wires. When measuring wire rope, it is important to take the greatest distance of the outer limits of the “crowns” of two opposite strands.



Correct



Incorrect

## 3.9

## Steel Wire Rope

### Steel Wire rope

Rope constructions: As follows are some constructions which are very popular

6X7+FC



6X7+IWS



6X19+FC



6X19+IWRC



6X19+IWS



Main Applications: Various equipment for elevating, lifting and drawing

6x12+7FC



6X15+7FC



6X24+7FC



6X37+FC



6X37+IWRC



6X37+IWS



Main Applications: Towboat, goods net, floating transportation of wood, binding etc.

8X19S+FC



8X19S+IWRC



8X19W+FC



8X19W+IWRC



Main Applications: Used for elevator and crane

1X7



1X19



1X37



Main Applications: Suitable for hanger, hang, communication cable, overhead power line and fixing subject etc.

17X7+IWS



18X7+IWS



18X19+IWS



35WX7



No-rotating steel wire rope: Suitable for equipment for port load and unload derrick tower crane

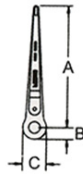
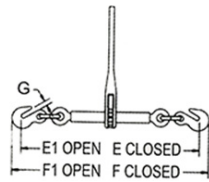




# 3.10

## Loadbinder

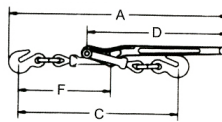
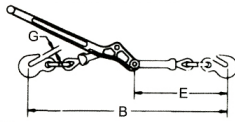
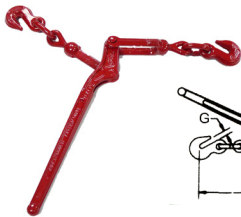
### Ratchet Type Loadbinder



- ① Material: Carbon Steel C1045.
- ② Forged handle and casting handle can be provided.
- ③ Finish: Powder Coated.
- ④ Heat Treated: Quenched and Tempered.
- ⑤ Each binder individually proof tested.
- ⑥ Minimum Breaking Load: 3.5 Times of WLL.

| Min-Max Chain Size (in) | Working Load Limit(lbs) | Breaking load(lbs) | Handle Length(in) | Barrel Length(in) | Take Up(in) | Dimensions(in) |      |      |       |       |       |       |      | Weight Each(lbs) |
|-------------------------|-------------------------|--------------------|-------------------|-------------------|-------------|----------------|------|------|-------|-------|-------|-------|------|------------------|
|                         |                         |                    |                   |                   |             | A              | B    | C    | E     | E1    | F     | F1    | G    |                  |
| 1/4-5/16                | 2600                    | 9100               | 7.16              | 8                 | 6           | 7.16           | 0.89 | 1.77 | 16.22 | 21.26 | 17.79 | 31.23 | 0.35 | 3.64             |
| 5/16-3/8                | 5400                    | 19000              | 14                | 10                | 8           | 14             | 1.38 | 2.75 | 22.94 | 30.94 | 25.13 | 33.13 | 0.5  | 10.35            |
| 3/8-1/2                 | 9200                    | 33000              | 14                | 10                | 8           | 14             | 1.38 | 2.75 | 25.25 | 33.25 | 27.63 | 35.63 | 0.63 | 11.23            |
| 1/2-5/8                 | 13000                   | 46000              | 14                | 10                | 8           | 14             | 1.38 | 2.75 | 26.38 | 34.38 | 29.44 | 37.44 | 0.72 | 15.86            |

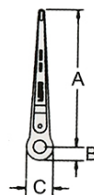
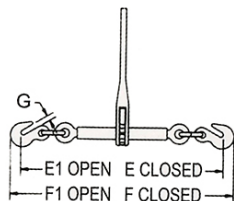
### Lever Type Loadbinder



- ① Material: Carbon Steel C1045.
- ② Forged handle.
- ③ Finish: Powder Coated.
- ④ Heat Treated: Quenched and Tempered.
- ⑤ Each binder individually proof tested.
- ⑥ Minimum Breaking Load: 3.5 Times of WLL.

| Min-Max Chain Size (in) | Working Load Limit(lbs) | Proof Load(lbs) | Ultimate load(lbs) | Handle Length(in) | Take Up(in) | Dimensions(in) |       |       |       |       |       |      | Weight Each(lbs) |
|-------------------------|-------------------------|-----------------|--------------------|-------------------|-------------|----------------|-------|-------|-------|-------|-------|------|------------------|
|                         |                         |                 |                    |                   |             | A              | B     | C     | D     | E     | F     | G    |                  |
| 1/4-5/16                | 2200                    | 4400            | 7800               | 11.42             | 3.75        | 18.5           | 17.3  | 14.17 | 11.42 | 8.27  | 8.07  | 0.35 | 3.52             |
| 5/16-3/8                | 5400                    | 10800           | 19000              | 16                | 4.5         | 24.13          | 22.13 | 17.88 | 16    | 10.38 | 10.38 | 0.5  | 7.02             |
| 3/8-1/2                 | 9200                    | 18400           | 33000              | 18.69             | 4.5         | 28.75          | 25.75 | 21.25 | 18.69 | 12.31 | 12.38 | 0.63 | 12.47            |
| 1/2-5/8                 | 13000                   | 26000           | 46000              | 21                | 4.75        | 31.25          | 29.75 | 25    | 21    | 14.63 | 13.75 | 0.72 | 19.68            |

### Ratchet Type Loadbinder Conform to EN12195



- ① Material: Alloy Steel.
- ② Forged handle and casting handle can be provided.
- ③ Finish: Powder Coated.
- ④ Heat Treated: Quenched and Tempered.
- ⑤ Each binder individually proof tested.

| Chain Size (mm) | Lashing Capacity(kn) | Breaking Force(kn) | Handle Length(in) | Barrel Length(in) | Take Up(in) | Dimensions(in) |      |      |       |       |       |       |      | Weight Each(kgs) |
|-----------------|----------------------|--------------------|-------------------|-------------------|-------------|----------------|------|------|-------|-------|-------|-------|------|------------------|
|                 |                      |                    |                   |                   |             | A              | B    | C    | E     | E1    | F     | F1    | G    |                  |
| 8               | 40                   | 80.4               | 14                | 10                | 8           | 14             | 1.38 | 2.75 | 22.94 | 30.94 | 25.13 | 33.13 | 0.5  | 4.9              |
| 10              | 63                   | 126                | 14                | 10                | 8           | 14             | 1.38 | 2.75 | 25.25 | 33.25 | 27.63 | 35.63 | 0.63 | 5.4              |
| 13              | 100                  | 212                | 14                | 10                | 8           | 14             | 1.38 | 2.75 | 26.38 | 34.38 | 29.44 | 37.44 | 0.72 | 7.3              |
| 16              | 160                  | 322                | 14                | 10                | 8           | 14             | 1.38 | 2.75 | 30.08 | 38.08 | 34.1  | 42.1  | 0.75 | 11               |



# STAINLESS STEEL RIGGING HARDWARE

# 4.1

## Stainless Steel Rigging Hardware

### Stainless Steel DIN580 Eye Bolt



| Size(mm) | WLL(ton) | Weight(kg) |
|----------|----------|------------|
| M6       | 0.07     | 0.05       |
| M8       | 0.14     | 0.06       |
| M10      | 0.23     | 0.11       |
| M12      | 0.34     | 0.18       |
| M14      | 0.52     | 0.28       |
| M16      | 0.7      | 0.32       |
| M20      | 1.2      | 0.45       |
| M22      | 1.5      | 0.6        |

| Size(mm) | WLL(ton) | Weight(kg) |
|----------|----------|------------|
| M24      | 1.8      | 0.87       |
| M30      | 3.6      | 1.66       |
| M33      | 4.3      | 1.72       |
| M36      | 5.1      | 2.65       |
| M42      | 7        | 4.03       |
| M45      | 8        | 4.25       |
| M48      | 8.6      | 6.38       |
| M52      | 9.9      | 6.6        |

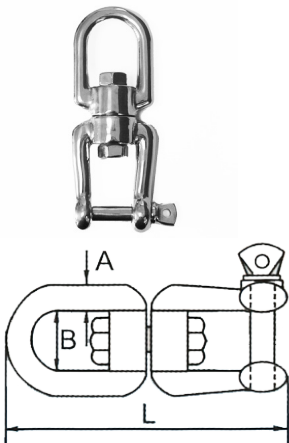
### Stainless Steel DIN582 Eye Nut



| Size(mm) | WLL(ton) | Weight(kg) |
|----------|----------|------------|
| M6       | 0.07     | 0.05       |
| M8       | 0.14     | 0.06       |
| M10      | 0.23     | 0.11       |
| M12      | 0.34     | 0.18       |
| M14      | 0.52     | 0.24       |
| M16      | 0.7      | 0.32       |
| M20      | 1.2      | 0.45       |
| M22      | 1.5      | 0.58       |

| Size(mm) | WLL(ton) | Weight(kg) |
|----------|----------|------------|
| M24      | 1.8      | 0.72       |
| M30      | 3.6      | 1.32       |
| M33      | 4.3      | 1.3        |
| M36      | 5.1      | 2.08       |
| M42      | 7        | 3.11       |
| M45      | 8        | 3.04       |
| M48      | 8.6      | 5.02       |
| M52      | 9.9      | 4.95       |

### Stainless Steel Swivel Jaw/Eye

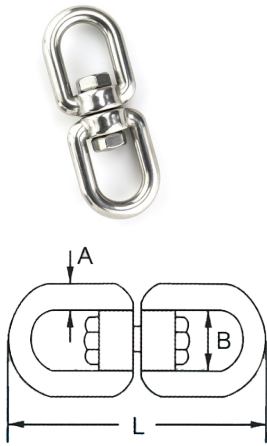


| Size(mm) | A(mm) | B(mm) | L(mm) | WLL(kg) | Weight(kg) |
|----------|-------|-------|-------|---------|------------|
| 4        | 4     | 11    | 50    | 300     | 0.04       |
| 5        | 5     | 13    | 60    | 475     | 0.05       |
| 6        | 6     | 15    | 66    | 875     | 0.06       |
| 8        | 8     | 20    | 90    | 1250    | 0.15       |
| 10       | 10    | 23    | 117   | 2125    | 0.29       |
| 13       | 13    | 31    | 153   | 2500    | 0.63       |
| 16       | 16    | 37    | 186   | 2125    | 1.12       |
| 20       | 20    | 39    | 228   | 2500    | 2          |
| 22       | 22    | 46    | 264   | 2875    | 3.15       |
| 25       | 25    | 61    | 304   | 3250    | 4.92       |

## 4.1

## Stainless Steel Rigging Hardware

### Stainless Steel Swivel Eye/Eye



| Size(mm) | A(mm) | B(mm) | L(mm) | WLL(kg) | Weight(kg) |
|----------|-------|-------|-------|---------|------------|
| 4        | 4     | 11    | 50    | 112.5   | 0.03       |
| 5        | 5     | 13    | 60    | 162.5   | 0.04       |
| 6        | 6     | 15    | 68    | 300     | 0.05       |
| 8        | 8     | 20    | 88    | 475     | 0.12       |
| 10       | 10    | 23    | 116   | 875     | 0.25       |
| 13       | 13    | 31    | 150   | 1250    | 0.62       |
| 16       | 16    | 37    | 185   | 2125    | 0.95       |
| 20       | 20    | 39    | 226   | 2500    | 2.08       |
| 22       | 22    | 46    | 260   | 2875    | 2.25       |
| 25       | 25    | 61    | 300   | 3250    | 4.45       |

### Stainless Steel US Type Wire Rope Clip



| Size(Inch) | Weight(kg) |
|------------|------------|
| 1/8        | 0.02       |
| 3/16       | 0.03       |
| 1/4        | 0.06       |
| 5/16       | 0.07       |
| 3/8        | 0.12       |

| Size(Inch) | Weight(kg) |
|------------|------------|
| 1/2        | 0.17       |
| 5/8        | 0.28       |
| 3/4        | 0.33       |
| 7/8        | 0.53       |
| 1          | 0.67       |

• Dimensions meet Federal FF-C-450 Type I Class II

### Stainless Steel DIN741 Wire Rope Clip



| Size(mm) | Weight(kg) |
|----------|------------|
| 3        | 0.014      |
| 5        | 0.015      |
| 6.5      | 0.02       |
| 8        | 0.04       |
| 10       | 0.07       |
| 11       | 0.1        |
| 13       | 0.13       |

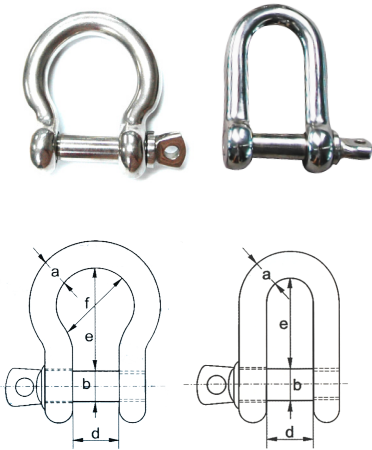
| Size(mm) | Weight(kg) |
|----------|------------|
| 16       | 0.21       |
| 19       | 0.28       |
| 22       | 0.4        |
| 25       | 0.44       |
| 32       | 0.66       |
| 34       | 0.85       |
| 40       | 1.04       |



## 4.1

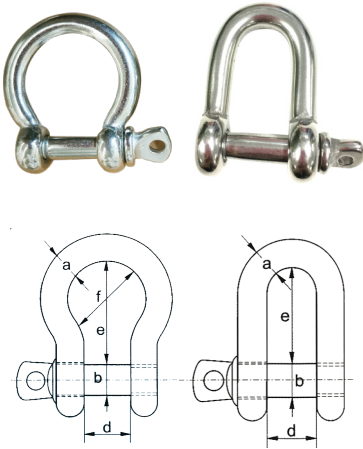
## Stainless Steel Rigging Hardware

### Stainless Steel US Type Dee/Bow Shackle



| Size (in) | a (in) | b (in) | d (in) | e (in) | Dee Shackle Weight (kg) | Bow Shackle Weight (kg) |
|-----------|--------|--------|--------|--------|-------------------------|-------------------------|
| 3/16      | 3/16   | 1/4    | 0.38   | 0.88   | 0.017                   | 0.021                   |
| 1/4       | 1/4    | 5/16   | 0.47   | 1.13   | 0.03                    | 0.036                   |
| 5/16      | 5/16   | 3/8    | 0.53   | 1.22   | 0.065                   | 0.077                   |
| 3/8       | 3/8    | 7/16   | 0.66   | 1.44   | 0.125                   | 0.138                   |
| 7/16      | 7/16   | 1/2    | 0.75   | 1.69   | 0.184                   | 0.175                   |
| 1/2       | 1/2    | 5/8    | 0.81   | 1.88   | 0.23                    | 0.261                   |
| 5/8       | 5/8    | 3/4    | 1.06   | 2.38   | 0.51                    | 0.552                   |
| 3/4       | 3/4    | 7/8    | 1.25   | 2.81   | 0.93                    | 1.02                    |
| 7/8       | 7/8    | 1      | 1.44   | 3.31   | 1.27                    | 1.6                     |
| 1         | 1      | 1.1/8  | 1.69   | 3.75   | 1.87                    | 2.4                     |

### Stainless Steel European Type Dee/Bow Shackle



| Size | Diameter Body | Diameter Pin | Width Inside | Length Inside | Width Bow | Bow Shackle Weight Per 100 Pcs | Dee Shackle Weight Per 100 Pcs |
|------|---------------|--------------|--------------|---------------|-----------|--------------------------------|--------------------------------|
| tons | a(mm)         | b(mm)        | d(mm)        | e(mm)         | f(mm)     | kg                             | kg                             |
| 4    | 4             | 4            | 8            | 16            | 14        | 1.2                            | 1.1                            |
| 5    | 5             | 5            | 10           | 20            | 17        | 1.8                            | 1.6                            |
| 6    | 6             | 6            | 12           | 24            | 21        | 2.8                            | 2.4                            |
| 8    | 8             | 8            | 16           | 32            | 28        | 6.4                            | 5.6                            |
| 10   | 10            | 10           | 20           | 40            | 34        | 15                             | 13                             |
| 12   | 12            | 12           | 24           | 48            | 42        | 22                             | 20                             |
| 16   | 16            | 16           | 32           | 64            | 56        | 55                             | 48                             |
| 19   | 19            | 19           | 38           | 76            | 66        | 97                             | 84                             |
| 22   | 22            | 22           | 44           | 88            | 77        | 146                            | 127                            |
| 25   | 25            | 25           | 50           | 100           | 87        | 211                            | 184                            |
| 28   | 28            | 28           | 56           | 112           | 98        | 285                            | 250                            |
| 32   | 32            | 32           | 64           | 128           | 112       | 326                            | 372                            |

### Stainless Steel US Type Heavy Duty Thimble



| Size(mm) | N.W.(kg) |
|----------|----------|
| 1/4      | 0.028    |
| 5/16     | 0.054    |
| 3/8      | 0.107    |
| 7/16     | 0.147    |
| 1/2      | 0.240    |

| Size(mm) | N.W.(kg) |
|----------|----------|
| 9/16     | 0.240    |
| 5/8      | 0.330    |
| 3/4      | 0.690    |
| 7/8      | 0.830    |
| 1        | 1.200    |

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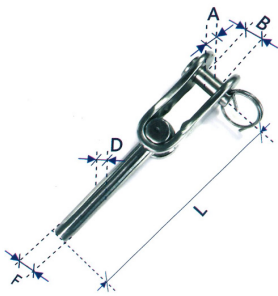
## Stainless Steel Rigging Hardware

## Stainless Steel DIN1480 Turnbuckle



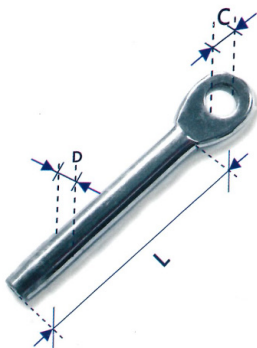
| Size (mm) | WLL (kgs) | Body Length (mm) | N.W. (kg) |
|-----------|-----------|------------------|-----------|
| 6         | 80        | 110              | 0.08      |
| 8         | 160       | 110              | 0.16      |
| 10        | 250       | 125              | 0.30      |
| 12        | 400       | 125              | 0.40      |
| 16        | 800       | 170              | 0.91      |
| 20        | 1200      | 200              | 0.16      |

## Stainless Steel Swage Toggle



| Size (mm) | ΦA (mm) | B (mm) | ΦD (mm) | ΦF (mm) | L (mm) | B.L. (LBS) |
|-----------|---------|--------|---------|---------|--------|------------|
| 2.0       | 5       | 6      | 5.53    | 2.20    | 63     | 400        |
| 2.5       | 5       | 6      | 5.53    | 2.70    | 63     | 400        |
| 3.0       | 6       | 7      | 6.35    | 3.30    | 69     | 670        |
| 4.0       | 8       | 10     | 7.54    | 4.30    | 81     | 1400       |
| 5.0       | 9       | 12     | 9.12    | 5.30    | 94     | 1700       |
| 6.0       | 12      | 13     | 12.54   | 6.35    | 115    | 4000       |
| 8.0       | 16      | 17     | 16.13   | 8.40    | 147    | 7000       |
| 10.0      | 19      | 20     | 17.85   | 10.50   | 168    | 7500       |

## Stainless Steel Swage Eye

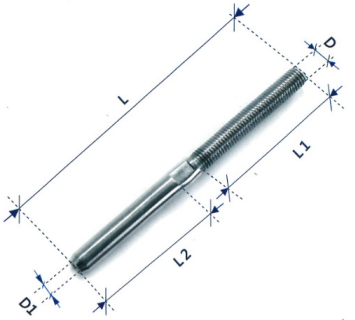


| Size (mm) | ΦC (mm) | ΦD (mm) | L (mm) | B.L. (LBS) |
|-----------|---------|---------|--------|------------|
| 2         | 5.5     | 5.53    | 56     | 850        |
| 2.5       | 5.5     | 5.53    | 56     | 850        |
| 3         | 6.5     | 6.35    | 62     | 1000       |
| 4         | 8.5     | 7.54    | 77     | 1350       |
| 5         | 10.5    | 9.12    | 87     | 2500       |
| 6         | 13      | 12.54   | 107.5  | 4500       |
| 8         | 14.5    | 16.13   | 133    | 6700       |
| 10        | 16.3    | 17.85   | 159    | 7800       |
| 12        | 19.3    | 21.44   | 180    | 9000       |

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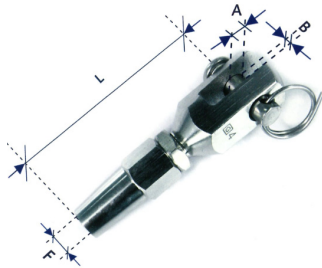
## Stainless Steel Rigging Hardware

### Stainless Steel Lag Screw Swage Terminal



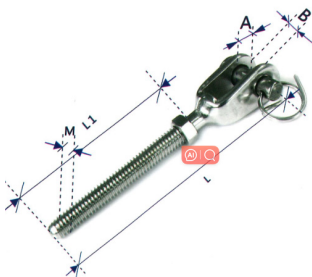
| Size (mm) | L (mm) | L1 (mm) | L2 (mm) | D1 (mm) | D (mm) |
|-----------|--------|---------|---------|---------|--------|
| 4x2       | 73     | 38      | 24      | 2.0     | 4      |
| 5x2       | 86     | 40      | 32      | 2.0     | 5      |
| 5x2.5     | 86     | 40      | 32      | 2.5     | 5      |
| 6x3       | 100    | 48      | 39      | 3.0     | 6      |
| 6x4       | 110    | 48      | 45      | 4.0     | 6      |
| 8x4       | 117    | 57      | 45      | 4.0     | 8      |
| 8x5       | 124    | 57      | 52      | 5.0     | 8      |
| 10x5      | 130    | 63      | 52      | 5.0     | 10     |
| 10x6      | 145    | 63      | 64      | 6.0     | 10     |
| 12x6      | 162    | 80      | 64      | 6.0     | 12     |
| 12x8      | 180    | 80      | 80      | 8.0     | 12     |
| 14x7      | 180    | 90      | 70      | 7.0     | 14     |
| 14x8      | 200    | 100     | 80      | 8.0     | 16     |
| 16x10     | 210    | 100     | 90      | 10.0    | 16     |
| 20x10     | 230    | 119     | 90      | 10.0    | 20     |
| 20x12     | 245    | 120     | 105     | 12.0    | 20     |
| 22x14     | 308    | 140     | 140     | 14.0    | 22     |
| 24x16     | 363    | 170     | 160     | 16.0    | 24     |

### Stainless Steel Swageless Fork Terminal



| Size (mm) | A (mm) | B (mm) | ΦF (mm) | L (mm) | B.L. (LBS) |
|-----------|--------|--------|---------|--------|------------|
| 3         | 6      | 6      | 3       | 55     | 750        |
| 4         | 8      | 8      | 4       | 62     | 1500       |
| 5         | 10     | 10     | 5       | 72     | 2180       |
| 6         | 12     | 12     | 6       | 82     | 3700       |
| 7         | 12     | 12     | 7       | 102    | 4700       |
| 8         | 14     | 14     | 8       | 103    | 5600       |
| 10        | 16     | 16     | 10      | 117    | 8300       |
| 12        | 19     | 18     | 12      | 142    | 12000      |
| 14        | 22     | 21     | 14      | 162    | 17000      |
| 16        | 25     | 23     | 16      | 184    | 23000      |

### R/L Stainless Steel Welded Thread Fork with Nut



| Size | ΦA (mm) | B (mm) | L (mm) | L1 (mm) | M (thread) | B.L. (kgs) |
|------|---------|--------|--------|---------|------------|------------|
| M5   | 5       | 7      | 56.5   | 39      | M5         | 250        |
| M6   | 6       | 8      | 68.5   | 50      | M6         | 1400       |
| M8   | 8       | 11     | 80     | 57      | M8         | 2200       |
| M10  | 9       | 12     | 98.5   | 68      | M10        | 3450       |
| M12  | 12      | 14.5   | 121.25 | 82      | M12        | 5000       |
| M14  | 14      | 15     | 136    | 95      | M14        | 6400       |
| M16  | 16      | 17     | 143    | 102     | M16        | 8000       |
| M20  | 19      | 20     | 160    | 113     | M20        | 10500      |
| M22  | 25      | 30     | 217.5  | 146     | M22        | 15000      |
| M24  | 25      | 30     | 215.5  | 144     | M24        | 18000      |

**WWW.DNL.GROUP**



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**QINGDAO D&L GROUP LTD.**

Add: 24B, Huaren International Mansion, 2 Shandong Road, Qingdao, China 266071

Tel: +86-532-86676666

Email: [info@dnl.com](mailto:info@dnl.com)