



**ROMA**  
ENTERPRISES

**YOUR TRUSTED  
PARTNER IN  
SAFE LIFTING**



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## ABOUT US

Roma Enterprises was established in 1978 as a supplier in marine equipment and rigging hardware. In the early 1980's various specialized products were imported from suppliers based in United Kingdom, South Africa, India, Pakistan, Taiwan, and Hong Kong.

Today, Roma Enterprises is a lead supplier and stockiest in the Middle East. We provide marine equipment, lifting equipment, drilling equipment and rigging hardware. Roma Enterprises aims to expand the business both internationally and in the Middle East as well as ensure customer satisfaction by guaranteeing high quality certified products.

## OUR VALUES

We reflect who we are and we stand together as a company to ensure customer commitment, product quality, integrity, teamwork, and personal accountability.

## OUR MISSION

To be a trusted global leader in marine offshore and oilfield supply solutions, recognized for quality reliability and long term partnerships across the Middle East and international markets.

## OUR VISION

To deliver certified high quality marine construction offshore and oilfield equipment that meets international standards, while building strong customer relationships through integrity service excellence and decades of industry.

## OUR GOAL

To expand our presence across the Middle East and global markets. To consistently supply reliable certified and high performance products. To ensure complete customer satisfaction through quality service and commitment. To strengthen long term partnerships with clients and suppliers worldwide. To uphold our core values of integrity teamwork accountability and excellence.



**ROMA**  
ENTERPRISES

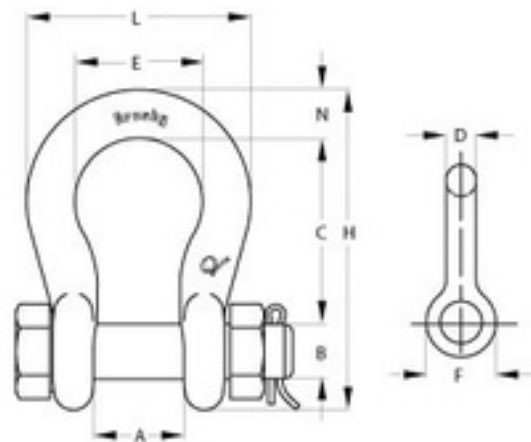
# BOLT TYPE ANCHOR SHACKLES

## TECHNICAL FEATURES

- Hot - dipped galvanized body.
- All Shackles are individually inspected and tested with proof load.
- Embossed forged marking for WLL, size, CE and KF.
- Standard: BS EN 13889
- Material: Body - forged carbon steel, pin-Alloy steel
- FOS: 6:1
- Heat treatment: Quenched and Tempered
- Proof load: At 200 % of WLL
- Colour code: Body - Silver, Pin - Green

## BOLT TYPE ANCHOR SHACKLE SPECIFICATIONS

| Nominal Size (in) | Working Load Limit (t) | Weight Each (kg) | Dimensions (mm) |      |      |      |      |      |      |      |      |      |      | Tolerance (+ / - mm) |  |
|-------------------|------------------------|------------------|-----------------|------|------|------|------|------|------|------|------|------|------|----------------------|--|
|                   |                        |                  | A               | B    | C    | D    | E    | F    | H    | L    | M    | N    | C    | A                    |  |
| 3/16              | 0.33 ‡                 | .03              | 9.7             | 6.4  | 22.4 | 4.9  | 15.2 | 14.2 | 37.3 | 24.9 | 32.8 | 4.85 | 1.50 | 1.50                 |  |
| 1/4               | 0.5                    | .05              | 11.9            | 7.9  | 28.7 | 6.4  | 19.8 | 15.5 | 46.7 | 32.5 | 39.6 | 6.35 | 1.50 | 1.50                 |  |
| 5/16              | 0.75                   | .10              | 13.5            | 9.7  | 31.0 | 7.9  | 21.3 | 19.1 | 53.0 | 37.3 | 46.2 | 7.85 | 1.50 | 1.50                 |  |
| 3/8               | 1                      | .15              | 16.8            | 11.2 | 36.6 | 9.7  | 26.2 | 23.1 | 63.0 | 45.2 | 55.1 | 9.65 | 1.50 | 1.50                 |  |
| 7/16              | 1.5                    | .22              | 19.1            | 12.7 | 42.9 | 11.2 | 29.5 | 26.9 | 74.0 | 51.5 | 63.8 | 11.2 | 3.30 | 1.50                 |  |
| 1/2               | 2                      | .36              | 20.6            | 16.0 | 47.8 | 12.7 | 33.3 | 30.2 | 83.5 | 58.5 | 71.1 | 12.7 | 3.30 | 1.50                 |  |
| 5/8               | 3.25                   | .62              | 26.9            | 19.1 | 60.5 | 16.0 | 42.9 | 38.1 | 106  | 74.5 | 90.4 | 17.5 | 3.30 | 1.50                 |  |
| 3/4               | 4.75                   | 1.23             | 31.8            | 22.4 | 71.5 | 19.1 | 51.0 | 46.0 | 126  | 89.0 | 105  | 20.6 | 3.30 | 1.50                 |  |
| 7/8               | 6.5                    | 1.79             | 36.6            | 25.4 | 84.0 | 22.4 | 58.0 | 53.0 | 148  | 102  | 122  | 24.6 | 6.35 | 1.50                 |  |
| 1                 | 8.5                    | 2.28             | 42.9            | 28.7 | 95.5 | 25.4 | 68.5 | 60.5 | 167  | 119  | 137  | 26.9 | 6.35 | 1.50                 |  |
| 1-1/8             | 9.5                    | 3.75             | 46.0            | 31.8 | 108  | 28.7 | 74.0 | 68.5 | 190  | 131  | 150  | 31.8 | 6.35 | 1.50                 |  |
| 1-1/4             | 12                     | 5.31             | 51.5            | 35.1 | 119  | 31.8 | 82.5 | 76.0 | 210  | 146  | 170  | 35.1 | 6.35 | 1.50                 |  |
| 1-3/8             | 13.5                   | 7.18             | 57.0            | 38.1 | 133  | 35.1 | 92.0 | 84.0 | 233  | 162  | 183  | 38.1 | 6.35 | 3.30                 |  |
| 1-1/2             | 17                     | 8.62             | 60.5            | 41.4 | 146  | 38.1 | 98.5 | 92.0 | 254  | 175  | 196  | 41.1 | 6.35 | 3.30                 |  |
| 1-3/4             | 25                     | 15.4             | 73.0            | 51.0 | 178  | 44.5 | 127  | 106  | 313  | 225  | 246  | 57.0 | 6.35 | 3.30                 |  |
| 2                 | 35                     | 23.7             | 82.5            | 57.0 | 197  | 51.0 | 146  | 122  | 348  | 253  | 275  | 61.0 | 6.35 | 3.30                 |  |
| 2-1/2             | 55                     | 44.6             | 105             | 70.0 | 267  | 66.5 | 184  | 145  | 453  | 327  | 345  | 79.5 | 6.35 | 6.35                 |  |
| 3                 | † 85                   | 70               | 127             | 82.5 | 330  | 76.0 | 200  | 165  | 546  | 365  | 384  | 92.0 | 6.35 | 6.35                 |  |
| 3-1/2             | † 120 ‡                | 120              | 133             | 95.5 | 372  | 92.0 | 229  | 203  | 626  | 419  | 432  | 105  | 6.35 | 6.35                 |  |
| 4                 | † 150 ‡                | 153              | 140             | 108  | 368  | 104  | 254  | 229  | 653  | 468  | 451  | 116  | 6.35 | 6.35                 |  |



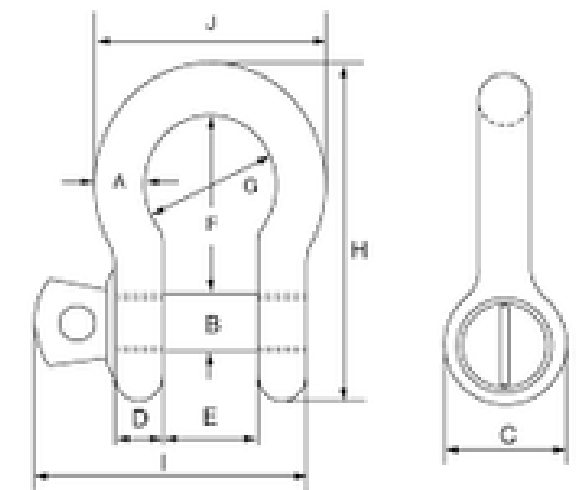
# ALLOY SCREW ANCHOR PIN SHACKLES

## TECHNICAL FEATURES

- Hot - dipped galvanized body.
- All Shackles are individually inspected and tested with proof load.
- Embossed forged marking for WLL, size, CE and KF.
- Standard: BS EN 13889
- Material: Body - forged carbon steel, pin-Alloy steel
- FOS: 6:1
- Heat treatment: Quenched and Tempered
- Proof load: At 200 % of WLL
- Colour code: Body - Silver, Pin - Green

## ALLOY SCREW ANCHOR PIN SHACKLES SPECIFICATIONS

| Nominal<br>Size<br>(in) | Working<br>Load<br>Limit<br>(t) | Weight<br>Each<br>(kg) | Dimensions<br>(mm) |      |      |      |      |      |      |      |      |      |      | Tolerance<br>(+ / - mm) |      |
|-------------------------|---------------------------------|------------------------|--------------------|------|------|------|------|------|------|------|------|------|------|-------------------------|------|
|                         |                                 |                        | A                  | B    | C    | D    | E    | F    | G    | H    | L    | M    | P    | C                       | A    |
| 3/8                     | 2                               | .14                    | 16.8               | 11.2 | 36.6 | 9.65 | 26.2 | 23.1 | 45.2 | 63.5 | 6.35 | 51.5 | 9.65 | 3.30                    | 1.50 |
| 7/16                    | 2.67                            | .17                    | 19.1               | 12.7 | 42.9 | 11.2 | 29.5 | 26.9 | 51.5 | 74.0 | 7.85 | 60.5 | 11.2 | 3.30                    | 1.50 |
| 1/2                     | 3.33                            | .29                    | 20.6               | 16.0 | 47.8 | 12.7 | 23.3 | 30.2 | 58.5 | 83.5 | 9.65 | 68.5 | 12.7 | 3.30                    | 1.50 |
| 5/8                     | 5                               | .63                    | 26.9               | 19.1 | 60.5 | 16.0 | 42.9 | 38.1 | 74.5 | 106  | 11.2 | 85.0 | 17.5 | 3.30                    | 1.50 |
| 3/4                     | 7                               | 1.02                   | 31.8               | 22.4 | 71.5 | 19.1 | 51.0 | 46.0 | 89.0 | 126  | 12.7 | 101  | 20.6 | 6.35                    | 1.50 |
| 7/8                     | 9.5                             | 1.53                   | 36.6               | 25.4 | 84.0 | 22.4 | 58.0 | 53.0 | 102  | 148  | 12.7 | 114  | 24.6 | 6.35                    | 1.50 |
| 1                       | 12.5                            | 2.41                   | 42.9               | 28.7 | 95.5 | 25.4 | 68.5 | 60.5 | 119  | 167  | 14.2 | 129  | 26.9 | 6.35                    | 1.50 |
| 1-1/8                   | 15                              | 3.09                   | 46.0               | 31.8 | 108  | 29.5 | 74.0 | 68.5 | 131  | 190  | 16.0 | 142  | 31.8 | 6.35                    | 1.50 |
| 1-1/4                   | 18                              | 4.31                   | 51.5               | 35.1 | 119  | 32.8 | 82.5 | 76.0 | 146  | 210  | 17.5 | 156  | 35.1 | 6.35                    | 1.50 |
| 1-3/8                   | 21                              | 6.01                   | 57.0               | 38.1 | 133  | 36.1 | 92.0 | 84.0 | 162  | 233  | 19.1 | 174  | 38.1 | 6.35                    | 3.30 |



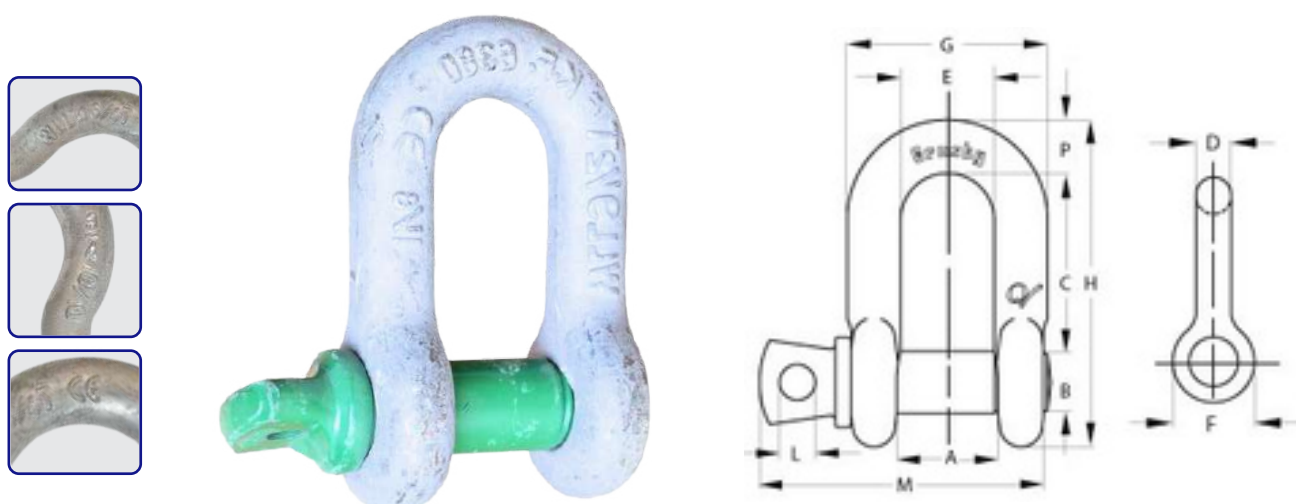
# SCREW PIN CHAIN SHACKLES

## TECHNICAL FEATURES

- Hot - dipped galvanized body.
- All Shackles are individually inspected and tested with proof load.
- Embossed forged marking for WLL, size, CE and KF.
- Standard: BS EN 13889
- Material: Body - forged carbon steel, pin-Alloy steel
- FOS: 6:1
- Heat treatment: Quenched and Tempered
- Proof load: At 200 % of WLL
- Colour code: Body - Silver, Pin - Green

## SCREW PIN CHAIN SHACKLE SPECIFICATIONS

| Nominal Size (in) | Working Load Limit (t) | Weight Each (kg) | Dimensions (mm) |      |      |      |      |      |      |      |      |      |      | Tolerance (+ / - mm) |  |
|-------------------|------------------------|------------------|-----------------|------|------|------|------|------|------|------|------|------|------|----------------------|--|
|                   |                        |                  | A               | B    | C    | D    | E    | F    | G    | K    | L    | M    | G    | A                    |  |
| 1/4               | 0.5                    | .05              | 11.9            | 7.85 | 6.35 | 6.35 | 24.6 | 15.5 | 22.4 | 40.4 | 4.85 | 35.1 | 1.50 | 1.50                 |  |
| 5/16              | 0.75                   | .08              | 13.5            | 9.65 | 7.85 | 7.85 | 29.5 | 19.1 | 26.2 | 48.5 | 5.60 | 42.2 | 1.50 | 1.50                 |  |
| 3/8               | 1                      | .13              | 16.8            | 11.2 | 9.65 | 9.65 | 35.8 | 23.1 | 31.8 | 58.5 | 6.35 | 51.5 | 3.30 | 1.50                 |  |
| 7/16              | 1.5                    | .20              | 19.1            | 12.7 | 11.2 | 11.2 | 41.4 | 26.9 | 36.6 | 67.5 | 7.85 | 60.5 | 3.30 | 1.50                 |  |
| 1/2               | 2                      | .27              | 20.6            | 16.0 | 12.7 | 12.7 | 46.0 | 30.2 | 41.4 | 77.0 | 9.65 | 68.5 | 3.30 | 1.50                 |  |
| 5/8               | 3.25                   | .57              | 26.9            | 19.1 | 15.7 | 16.0 | 58.5 | 38.1 | 51.0 | 95.5 | 11.2 | 85.0 | 3.30 | 1.50                 |  |
| 3/4               | 4.75                   | 1.20             | 31.8            | 22.4 | 20.6 | 19.1 | 70.0 | 46.0 | 60.5 | 115  | 12.7 | 101  | 6.35 | 1.50                 |  |
| 7/8               | 6.5                    | 1.43             | 36.6            | 25.4 | 24.6 | 22.4 | 81.0 | 53.0 | 71.5 | 135  | 12.7 | 114  | 6.35 | 1.50                 |  |
| 1                 | 8.5                    | 2.15             | 42.9            | 28.7 | 25.4 | 25.4 | 93.5 | 60.5 | 81.0 | 151  | 14.2 | 129  | 6.35 | 1.50                 |  |
| 1-1/8             | 9.5                    | 3.06             | 46.0            | 31.8 | 31.8 | 28.7 | 103  | 68.5 | 91.0 | 172  | 16.0 | 142  | 6.35 | 1.50                 |  |
| 1-1/4             | 12                     | 4.11             | 51.5            | 35.1 | 35.1 | 31.8 | 115  | 76.0 | 100  | 191  | 17.5 | 156  | 6.35 | 3.30                 |  |
| 1-3/8             | 13.5                   | 5.28             | 57.0            | 38.1 | 38.1 | 35.1 | 127  | 84.0 | 111  | 210  | 19.1 | 174  | 6.35 | 3.30                 |  |
| 1-1/2             | 17                     | 7.23             | 60.5            | 41.4 | 41.1 | 38.1 | 137  | 92.0 | 122  | 230  | 20.6 | 187  | 6.35 | 3.30                 |  |
| 1-3/4             | 25                     | 12.1             | 73.0            | 51.0 | 54.0 | 44.5 | 162  | 106  | 146  | 279  | 25.4 | 231  | 6.35 | 3.30                 |  |
| 2                 | 35                     | 19.2             | 82.5            | 57.0 | 60.0 | 51.0 | 184  | 122  | 172  | 312  | 31.0 | 263  | 6.35 | 3.30                 |  |
| 2-1/2             | 55                     | 32.5             | 105             | 70.0 | 66.5 | 66.5 | 238  | 145  | 203  | 377  | 35.1 | 330  | 6.35 | 6.35                 |  |



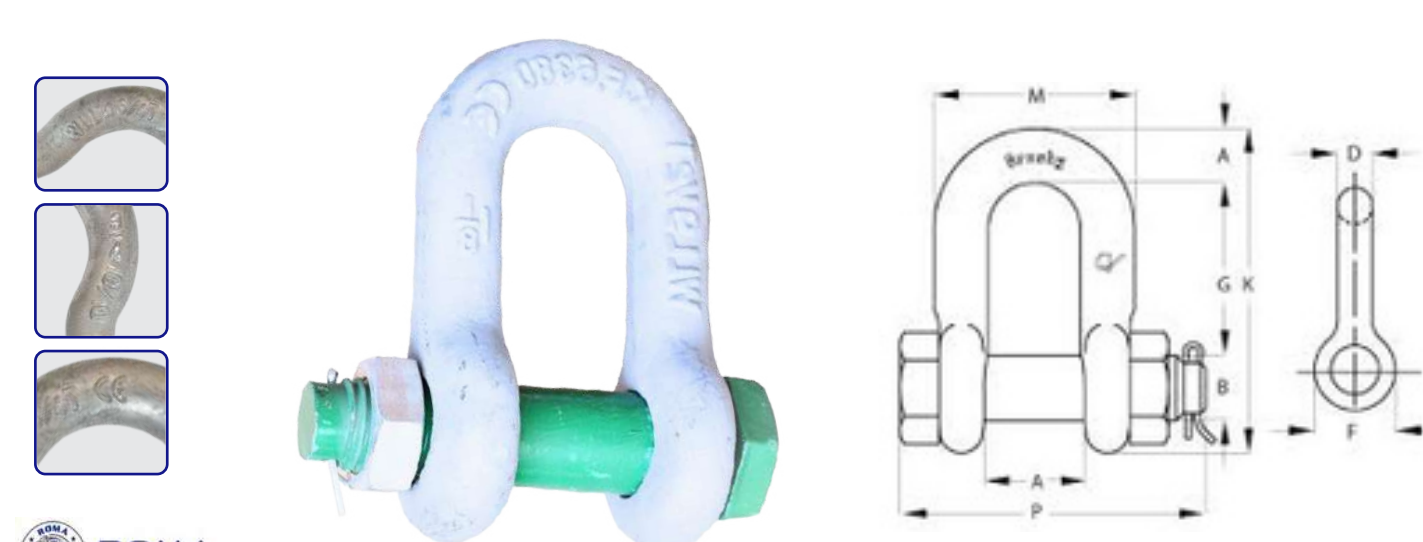
# BOLT TYPE CHAIN SHACKLES

## TECHNICAL FEATURES

- Hot - dipped galvanized body.
- All Shackles are individually inspected and tested with proof load.
- Embossed forged marking for WLL, size, CE and KF.
- Standard: BS EN 13889
- Material: Body - forged carbon steel, pin-Alloy steel
- FOS: 6:1
- Heat treatment: Quenched and Tempered
- Proof load: At 200 % of WLL
- Colour code: Body - Silver, Pin - Green

## BOLT TYPE CHAIN SHACKLES SPECIFICATIONS

| Nominal Size (in) | Working Load Limit (t) | Weight Each (kg) | Dimensions (mm) |      |      |      |      |      |      |      |      |      |      | Tolerance (+/- mm) |  |
|-------------------|------------------------|------------------|-----------------|------|------|------|------|------|------|------|------|------|------|--------------------|--|
|                   |                        |                  | A               | B    | D    | F    | G    | K    | M    | P    | R    | G    | A    |                    |  |
| 1/4               | 0.5                    | .06              | 11.9            | 7.9  | 6.4  | 15.5 | 19.1 | 40.4 | 24.6 | 39.6 | 6.35 | 1.50 | 1.50 |                    |  |
| 5/16              | 0.75                   | .10              | 13.5            | 9.7  | 7.9  | 19.1 | 25.4 | 48.5 | 29.5 | 46.2 | 7.85 | 1.50 | 1.50 |                    |  |
| 3/8               | 1                      | .15              | 16.8            | 11.2 | 9.7  | 23.1 | 31.0 | 58.5 | 35.8 | 55.0 | 9.65 | 3.30 | 1.50 |                    |  |
| 7/16              | 1.5                    | .22              | 19.1            | 12.7 | 11.2 | 26.9 | 36.1 | 67.5 | 41.1 | 63.5 | 11.2 | 3.30 | 1.50 |                    |  |
| 1/2               | 2                      | .34              | 20.6            | 16.0 | 12.7 | 30.2 | 41.4 | 77.0 | 46.0 | 71.0 | 12.7 | 3.30 | 1.50 |                    |  |
| 5/8               | 3.25                   | .67              | 26.9            | 19.1 | 16.0 | 38.1 | 51.0 | 95.5 | 58.5 | 89.5 | 16.0 | 3.30 | 1.50 |                    |  |
| 3/4               | 4.75                   | 1.14             | 31.8            | 22.4 | 19.1 | 46.0 | 60.5 | 115  | 70.0 | 103  | 20.6 | 6.35 | 1.50 |                    |  |
| 7/8               | 6.5                    | 1.74             | 36.6            | 25.4 | 22.4 | 53.0 | 71.5 | 135  | 81.0 | 120  | 24.6 | 6.35 | 1.50 |                    |  |
| 1                 | 8.5                    | 2.52             | 42.9            | 28.7 | 25.4 | 60.5 | 81.0 | 151  | 93.5 | 135  | 25.4 | 6.35 | 1.50 |                    |  |
| 1-1/8             | 9.5                    | 3.45             | 46.0            | 31.8 | 28.7 | 68.5 | 91.0 | 172  | 103  | 150  | 31.8 | 6.35 | 1.50 |                    |  |
| 1-1/4             | 12                     | 4.90             | 51.5            | 35.1 | 31.8 | 76.0 | 100  | 191  | 115  | 165  | 35.1 | 6.35 | 1.50 |                    |  |
| 1-3/8             | 13.5                   | 6.24             | 57.0            | 38.1 | 35.1 | 84.0 | 111  | 210  | 127  | 183  | 38.1 | 6.35 | 3.30 |                    |  |
| 1-1/2             | 17                     | 7.72             | 60.5            | 41.4 | 38.1 | 92.0 | 122  | 230  | 137  | 196  | 41.1 | 6.35 | 3.30 |                    |  |
| 1-3/4             | 25                     | 14.2             | 73.0            | 51.0 | 44.5 | 106  | 146  | 279  | 162  | 230  | 54.0 | 6.35 | 3.30 |                    |  |
| 2                 | 35                     | 21.2             | 82.5            | 57.0 | 51.0 | 122  | 172  | 312  | 184  | 264  | 60.0 | 6.35 | 3.30 |                    |  |
| 2-1/2             | 55                     | 38.6             | 105             | 70.0 | 66.5 | 145  | 203  | 377  | 238  | 344  | 66.5 | 6.35 | 6.35 |                    |  |
| 3                 | 85                     | 56               | 127             | 82.5 | 76.0 | 165  | 216  | 429  | 279  | 419  | 89.0 | 6.35 | 6.35 |                    |  |



# HEAVY DUTY THIMBLE

## TECHNICAL FEATURES

- Material: Conforms to Federal Specifications QQ-S698 - Steel, Sheet and Strip, Low Carbon.
- Manufacturing: Thimbles are made of Hot-Rolled or Cold-Rolled steel process only.
- Finish: Galvanized



## HEAVY DUTY THIMBLE CLASSIFICATIONS:

- Hot - dipped galvanized body.
- All Shackles are individually inspected and tested with



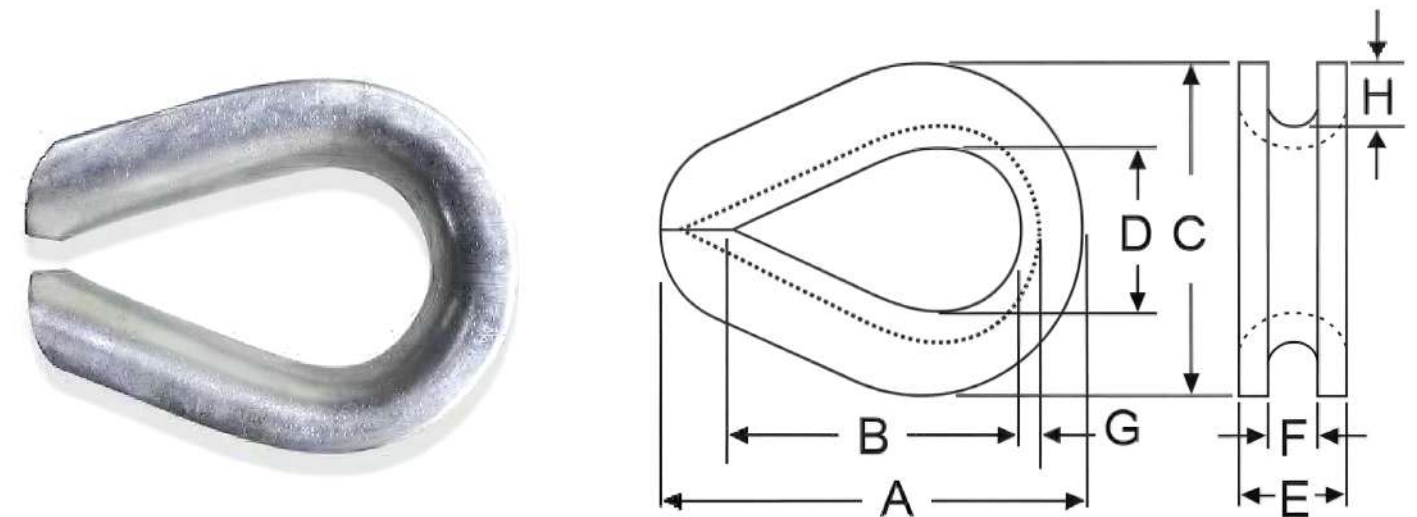
1 Thimbles with Steel Ferules

2 Thimbles with Aluminium Ferules

3 Thimbles with T-LOC for High Performance Ropes

4 Thimbles with Non-Rotating Ropes

## HEAVY DUTY THIMBLE DIAGRAM:



## HEAVY DUTY THIMBLE SPECIFICATIONS:

| ARTICLE NO. | SIZE(in)      | WT/100 PCS (KG) | A (mm) | B (mm) | C (mm) | D (mm) | E (mm) | F (mm) | G (mm) | E (mm) |
|-------------|---------------|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|
| 01          | 1/8           | 2.80            | 49.53  | 33.53  | 28.92  | 17.78  | 6.35   | 4      | 1.29   | 3.56   |
| 02          | 3/16          | 2.80            | 49.53  | 33.53  | 28.92  | 17.78  | 6.35   | 4      | 1.29   | 3.56   |
| 03          | 1/4           | 3.06            | 55.62  | 41.40  | 38.1   | 22.35  | 10.41  | 7.11   | 1.52   | 5.84   |
| 04          | 5/16          | 5.10            | 63.50  | 47.75  | 45.97  | 26.92  | 12.7   | 8.64   | 2.03   | 7.11   |
| 05          | 3/8           | 11.34           | 73.5   | 54.10  | 54.10  | 28.70  | 16.00  | 10.41  | 2.79   | 8.64   |
| 06          | 7/16          | 13.61           | 82.55  | 60.45  | 60.45  | 31.75  | 18.29  | 11.94  | 3.30   | 9.65   |
| 07          | 1/2           | 23.13           | 92.20  | 69.85  | 69.85  | 38.10  | 20.57  | 13.46  | 3.56   | 10.41  |
| 08          | 9/16          | 23.13           | 92.20  | 69.85  | 68.33  | 38.10  | 22.35  | 15.00  | 3.56   | 10.41  |
| 09          | 5/8           | 34.02           | 107.95 | 82.55  | 79.50  | 44.45  | 24.64  | 16.76  | 4.06   | 12.70  |
| 10          | 3/4           | 66.68           | 127.00 | 92.25  | 99.77  | 50.80  | 31.00  | 19.81  | 5.59   | 16.76  |
| 11          | 7/8           | 79.38           | 139.70 | 107.95 | 107.95 | 57.15  | 35.05  | 23.88  | 5.59   | 19.05  |
| 12          | 1             | 124.74          | 155.70 | 114.30 | 125.48 | 63.50  | 39.62  | 26.92  | 6.35   | 22.35  |
| 13          | 1 1/8 - 1 1/4 | 181.44          | 177.80 | 130.30 | 149.35 | 73.15  | 45.97  | 33.27  | 6.35   | 28.70  |
| 14          | 1 1/4 - 1 3/8 | 370.59          | 230.12 | 165.1  | 172.97 | 88.90  | 55.63  | 36.58  | 9.65   | 28.70  |
| 15          | 1 3/8 - 1 1/2 | 532.98          | 228.60 | 158.75 | 181.10 | 88.90  | 65.02  | 39.62  | 12.70  | 28.70  |
| 16          | 1 5/8         | 771.12          | 285.75 | 203.20 | 206.50 | 101.60 | 69.09  | 43.67  | 12.70  | 34.03  |
| 17          | 1 3/4         | 805.14          | 309.63 | 228.60 | 215.90 | 114.30 | 72.14  | 46.74  | 12.70  | 35.07  |
| 18          | 1 7/8 - 2     | 1134.00         | 384.30 | 304.80 | 263.65 | 152.40 | 78.49  | 53.09  | 12.70  | 38.10  |
| 19          | 2 1/4         | 1791.72         | 435.10 | 355.60 | 301.75 | 177.80 | 92.20  | 60.45  | 16.00  | 41.40  |
| 20          | 2 3/8         | 2220.00         | 457.40 | 377.90 | 301.75 | 177.80 | 95.92  | 63.92  | 16.00  | 43.00  |
| 21          | 2 1/2         | 2850.00         | 522.00 | 399.10 | 316.20 | 187.80 | 102.60 | 66.60  | 16.00  | 45.50  |
| 22          | 2 3/4         | 3012.00         | 496.20 | 418.20 | 320.00 | 187.80 | 109.65 | 73.65  | 18.20  | 47.90  |
| 23          | 2 7/8         | 3600.00         | 522.00 | 443.00 | 330.00 | 196.00 | 116.00 | 76.00  | 19.88  | 50.83  |
| 24          | 3             | 3850            | 540.00 | 465.00 | 330.00 | 196.00 | 120.00 | 80.00  | 19.88  | 51.64  |
| 25          | 3 1/2         | 4400            | 660.00 | 505.00 | 380.00 | 240.00 | 139.00 | 95.00  | 21.88  | 54.60  |

# EYE HOOK WITH LATCH

## TECHNICAL FEATURES

- Colour painted or electric galvanized.
- Working load limit permanently shown on the body.
- Max proof load is 2.5 times of the W.L.L.
- Min. Breaking strength is 4/5 times of the W.L.L.



## EYE HOOK WITH LATCH SPECIFICATIONS:

| Carbon |        | Alloy |        | Dimension (mm) |      |      |       |       | Weight<br>(kg/pc) |
|--------|--------|-------|--------|----------------|------|------|-------|-------|-------------------|
| WLL/T  | B.L./T | WLL/T | B.L./T | Φ              | E    | H    | K     | L     |                   |
| 0.5    | 2.5    | 0.75  | 3.75   | 16.5           | 19   | 17   | 72    | 97    | 0.21              |
| 0.75   | 3.75   | 1     | 5      | 19             | 22   | 19   | 82    | 110   | 0.28              |
| 1      | 5      | 1.5   | 7.5    | 23             | 23   | 21   | 93.5  | 125   | 0.4               |
| 1.5    | 7.5    | 2     | 10     | 28             | 24   | 26   | 103   | 140.5 | 0.65              |
| 2      | 10     | 3     | 15     | 31             | 27.5 | 28   | 119   | 162   | 0.95              |
| 3      | 15     | 5     | 25     | 39             | 33   | 37   | 146   | 201   | 1.95              |
| 5      | 25     | 7     | 35     | 51             | 40   | 46.5 | 186.5 | 256   | 3.77              |
| 7.5    | 37.5   | 11    | 55     | 62             | 51   | 57   | 231.5 | 317   | 6.8               |
| 10     | 50     | 15    | 75     | 73             | 57   | 67   | 261   | 360   | 9.8               |
| 15     | 75     | 22    | 110    | 89             | 75   | 76   | 318   | 434   | 16.25             |
| 20     | 100    | 30    | 135    | 90             | 82   | 91   | 360   | 495.5 | 27.2              |

# SWIVEL HOOK WITH LATCH

## TECHNICAL FEATURES

- Colour painted or electric galvanized.
- Working load limit permanently shown on the body.
- Max proof load is 2.5 times of the W.L.L.
- Min. Breaking strength is 4/5 times of the W.L.L.



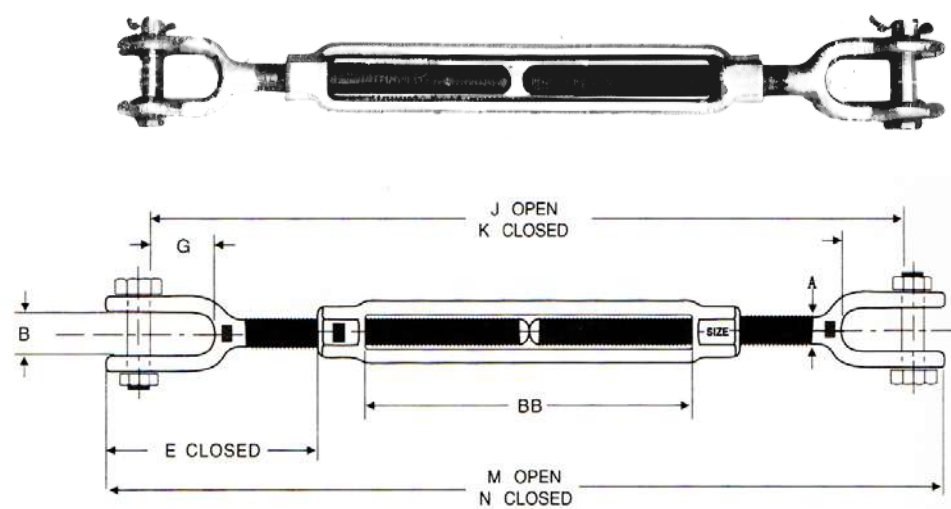
## SWIVEL HOOK WITH LATCH SPECIFICATIONS:

| Carbon |        | Alloy |                | Dimension (mm) |      |     |       |      |                   | Weight<br>(kg/pc) |
|--------|--------|-------|----------------|----------------|------|-----|-------|------|-------------------|-------------------|
| WLL/T  | B.L./T | WLL/T | B.L./T         | A              | E    | B   | H     | K    | L                 |                   |
| Size   | W.L.L. | B.L   | Dimension (mm) |                |      |     |       |      | Weight<br>(kg/pc) |                   |
|        | (t)    | (t)   | E              | B              | H    | Φ   | R     |      |                   |                   |
| 6-8    | 1.12   | 4.48  | 29             | 8.5            | 19.5 | 34  | 95.5  | 0.5  |                   |                   |
| 7/8-8  | 2      | 8     | 34             | 9.5            | 24   | 46  | 121   | 0.8  |                   |                   |
| 10-8   | 3.15   | 12.8  | 44             | 12             | 28.5 | 56  | 146   | 1.5  |                   |                   |
| 13-8   | 5.3    | 21.2  | 52             | 15             | 40   | 69  | 182   | 2.8  |                   |                   |
| 16-8   | 8      | 32    | 60             | 18             | 50.5 | 86  | 218   | 5.6  |                   |                   |
| 20-8   | 12.5   | 50    | 83             | 25             | 55   | 100 | 240   | 7.5  |                   |                   |
| 22-8   | 15     | 60    | 88             | 25.5           | 67   | 98  | 276.5 | 11.5 |                   |                   |
| 26-8   | 21.2   | 84.8  | 95.5           | 30             | 75   | 110 | 310.5 | 18.5 |                   |                   |

# TURNBUCKLES JAW & JAW

## TECHNICAL FEATURES

- Hot dip galvanized
- End fittings are Quenched and Tempered bodies are normalized
- Proof Load is 2.5 times of the W.L.L.
- Ultimate Load is 5 times of the W.L.L.

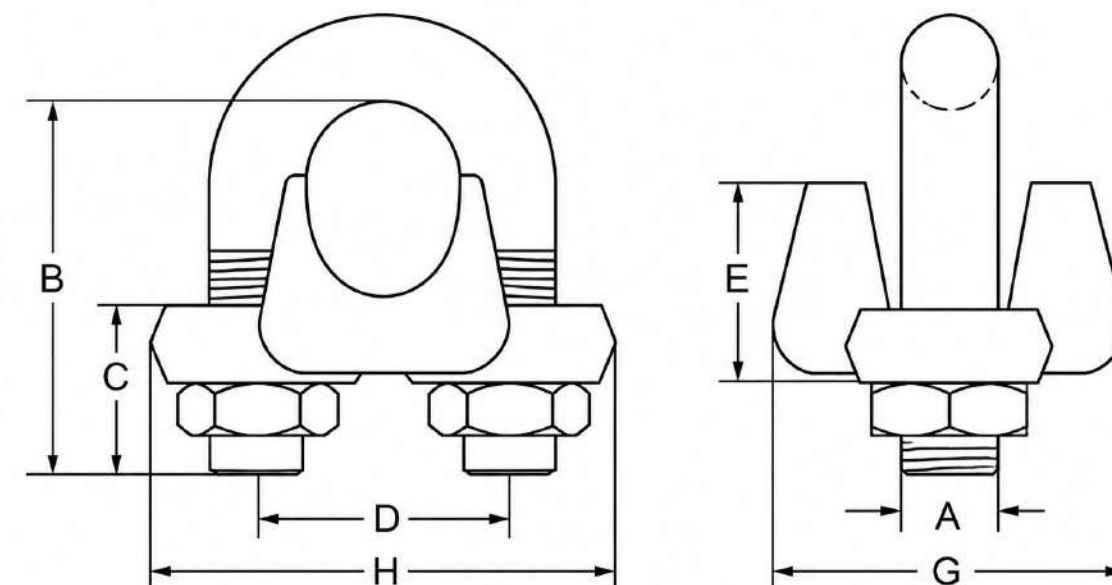


## TURNBUCKLE JAW & JAW SPECIFICATIONS:

| THREAD<br>DIA & TAKE<br>UP (IN.) | WORKING<br>LOAD LIMIT<br>(LBS.) | WEIGHT<br>EACH<br>(LBS.) | DIMENSIONS (IN.) |      |             |      |           |             |           |             |       |
|----------------------------------|---------------------------------|--------------------------|------------------|------|-------------|------|-----------|-------------|-----------|-------------|-------|
|                                  |                                 |                          | A                | B    | E<br>CLOSED | G    | J<br>OPEN | K<br>CLOSED | M<br>OPEN | N<br>CLOSED | BB    |
| 1/4X4                            | 500                             | 0.36                     | 0.25             | 0.45 | 1.58        | 0.62 | 10.90     | 6.90        | 11.90     | 7.90        | 4.00  |
| 5/16X4-1/2                       | 800                             | 0.52                     | 0.31             | 0.50 | 1.98        | 0.87 | 12.36     | 8.36        | 13.90     | 9.40        | 4.50  |
| 3/8X6                            | 1200                            | 0.81                     | 0.38             | 0.54 | 2.12        | 0.87 | 16.14     | 10.14       | 17.38     | 11.38       | 6.00  |
| 1/2X6                            | 2200                            | 1.56                     | 0.50             | 0.55 | 2.75        | 1.06 | 18.50     | 11.50       | 20.00     | 13.00       | 6.00  |
| 1/2X9                            | 2200                            | 1.74                     | 0.50             | 0.55 | 2.75        | 1.06 | 24.50     | 14.50       | 26.00     | 16.00       | 9.00  |
| 1/2X12                           | 2200                            | 2.40                     | 0.50             | 0.55 | 2.75        | 1.06 | 30.50     | 17.50       | 32.00     | 19.00       | 12.00 |
| 5/8X6                            | 3500                            | 2.72                     | 0.63             | 0.82 | 3.50        | 1.31 | 20.05     | 12.80       | 22.13     | 14.88       | 6.00  |
| 5/8X9                            | 3500                            | 3.43                     | 0.63             | 0.82 | 3.50        | 1.31 | 26.05     | 15.80       | 28.13     | 17.88       | 9.00  |
| 5/8X12                           | 3500                            | 3.91                     | 0.63             | 0.82 | 3.50        | 1.31 | 32.05     | 18.80       | 34.13     | 20.88       | 12.00 |
| 3/4X6                            | 5200                            | 4.11                     | 0.75             | 1.03 | 4.18        | 1.50 | 21.50     | 14.00       | 24.10     | 16.60       | 6.00  |
| 3/4X9                            | 5200                            | 5.46                     | 0.75             | 1.03 | 4.18        | 1.50 | 27.50     | 17.00       | 30.10     | 19.60       | 9.00  |
| 3/4X12                           | 5200                            | 6.43                     | 0.75             | 1.03 | 4.18        | 1.50 | 33.50     | 20.00       | 36.10     | 22.60       | 12.00 |
| 3/4X18                           | 5200                            | 8.07                     | 0.75             | 1.03 | 4.18        | 1.50 | 45.50     | 26.00       | 48.10     | 28.60       | 18.00 |
| 7/8X12                           | 7200                            | 8.17                     | 0.88             | 1.23 | 4.85        | 1.75 | 35.11     | 21.36       | 38.07     | 24.32       | 12.00 |
| 7/8X18                           | 7200                            | 10.78                    | 0.88             | 1.23 | 4.85        | 1.75 | 47.11     | 27.36       | 50.07     | 30.32       | 18.00 |
| 1X6                              | 10000                           | 10.18                    | 1.00             | 1.31 | 5.53        | 2.06 | 24.72     | 16.72       | 28.06     | 20.06       | 6.00  |
| 1X12                             | 10000                           | 12.52                    | 1.00             | 1.31 | 5.53        | 2.06 | 36.72     | 22.72       | 40.06     | 26.06       | 12.00 |
| 1X18                             | 10000                           | 15.14                    | 1.00             | 1.31 | 5.53        | 2.06 | 48.72     | 28.72       | 52.06     | 32.06       | 18.00 |
| 1X24                             | 10000                           | 18.08                    | 1.00             | 1.31 | 5.53        | 2.06 | 60.72     | 34.72       | 64.06     | 38.06       | 24.00 |
| 1-1/4X12                         | 15200                           | 20.59                    | 1.25             | 1.86 | 7.21        | 2.81 | 39.84     | 25.34       | 44.04     | 29.54       | 12.00 |
| 1-1/4X18                         | 15200                           | 24.68                    | 1.25             | 1.86 | 7.21        | 2.81 | 51.84     | 31.34       | 56.04     | 35.54       | 18.00 |
| 1-1/4X24                         | 15200                           | 28.20                    | 1.25             | 1.86 | 7.21        | 2.81 | 63.84     | 37.34       | 68.04     | 41.54       | 24.00 |
| 1-1/2X12                         | 21400                           | 30.69                    | 1.50             | 2.25 | 7.88        | 2.81 | 41.50     | 26.50       | 46.50     | 31.50       | 12.00 |
| 1-1/2X18                         | 21400                           | 36.75                    | 1.50             | 2.25 | 7.88        | 2.81 | 53.50     | 32.50       | 58.50     | 37.50       | 18.00 |
| 1-1/2X24                         | 21400                           | 40.67                    | 1.50             | 2.25 | 7.88        | 2.81 | 65.50     | 38.50       | 70.50     | 43.50       | 24.00 |
| 1-3/4X18                         | 28000                           | 54.00                    | 1.75             | 2.60 | 9.40        | 3.38 | 53.38     | 35.38       | 59.18     | 41.18       | 18.00 |
| 1-3/4X24                         | 28000                           | 63.36                    | 1.75             | 2.60 | 9.40        | 3.38 | 65.38     | 41.38       | 71.18     | 47.18       | 24.00 |
| 2X24                             | 37000                           | 94.25                    | 2.00             | 2.62 | 11.86       | 3.69 | 69.54     | 45.54       | 76.72     | 52.72       | 24.00 |
| 2-1/2X24                         | 60000                           | 165.00                   | 2.50             | 3.06 | 13.56       | 4.44 | 72.98     | 48.98       | 82.18     | 58.18       | 24.00 |
| 2-3/4X24                         | 75000                           | 198.00                   | 2.75             | 3.68 | 15.22       | 4.19 | 74.75     | 50.75       | 85.50     | 61.50       | 24.00 |

# WIRE ROPE CLIP

## TECHNICAL FEATURES

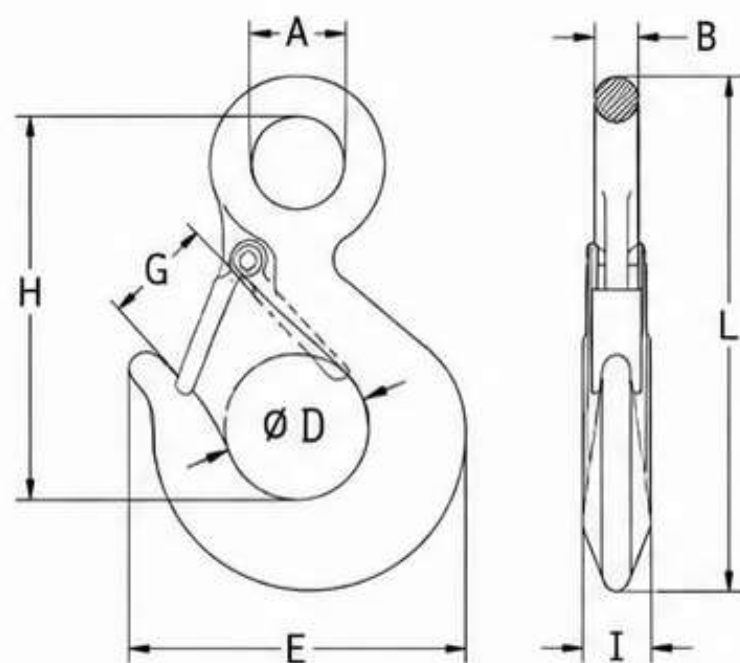


## WIRE ROPE CLIP SPECIFICATIONS:

| ITEM No. | A    | B     | C    | D    | E    | G    | H    |      |      | W per 100<br>pc<br>kg |
|----------|------|-------|------|------|------|------|------|------|------|-----------------------|
|          | mm   | mm    | mm   | mm   | mm   | mm   | mm   | mm   | mm   |                       |
| 1/8"     | 5.1  | 18    | 11   | 12   | 11   | 22   | 26   |      |      | 3                     |
| 3/16"    | 5.9  | 25    | 16   | 15   | 11.6 | 24.5 | 31   |      |      | 5                     |
| 1/4"     | 7.4  | 28    | 18   | 19   | 16.4 | 30.7 | 38.5 | 7.7  | 13.8 | 8                     |
| 5/16"    | 9.2  | 37    | 21   | 22.6 | 20.5 | 33.3 | 43.2 | 8.2  | 17   | 12                    |
| 3/8"     | 10.7 | 39    | 25   | 25   | 22   | 40.3 | 49   | 10.4 | 18.8 | 20                    |
| 7/16"    | 12.1 | 51    | 26   | 30.5 | 28   | 47.3 | 58   | 12   | 22   | 33                    |
| 1/2"     | 12.1 | 51    | 26   | 30.5 | 28   | 47.3 | 58   | 12   | 22   | 33                    |
| 9/16"    | 14   | 64    | 38   | 34   | 31   | 51   | 63   | 14.8 | 23.5 | 45                    |
| 5/8"     | 14   | 64    | 38   | 34   | 31   | 51   | 63   | 14.8 | 23.5 | 45                    |
| 3/4"     | 15.4 | 73    | 42   | 39   | 34   | 57   | 72   | 15.5 | 26.5 | 65                    |
| 7/8"     | 18.7 | 79    | 44   | 44   | 36   | 62   | 80   | 18.3 | 31.4 | 94                    |
| 1"       | 18.7 | 93    | 52   | 47   | 44   | 66   | 88   | 18.3 | 31.4 | 111                   |
| 1-1/8"   | 18.7 | 99    | 54   | 51   | 48   | 69   | 90   | 18.3 | 31.4 | 125                   |
| 1-1/4"   | 21.2 | 111.5 | 58.5 | 58.5 | 53   | 78.5 | 104  | 21.7 | 35.5 | 180                   |
| 1-3/8"   | 21.2 | 118   | 61   | 59   | 56   | 80   | 105  | 21.7 | 35.5 | 200                   |
| 1-1/2"   | 21.2 | 124   | 62   | 66   | 60   | 86   | 112  | 21.7 | 35.5 | 230                   |
| 1-5/8"   | 25   | 138   | 62   | 69   | 62   | 90   | 120  | 25.5 | 40   | 310                   |
| 1-3/4"   | 27.8 | 155   | 75   | 78   | 71   | 96   | 134  | 29   | 45   | 390                   |
| 2"       | 31.3 | 163   | 77   | 86   | 80   | 113  | 150  | 30.3 | 49.5 | 560                   |
| 2-1/4"   | 31.3 | 180   | 85   | 98   | 84   | 113  | 160  | 30.3 | 49.5 | 630                   |
| 2-1/2"   | 31.3 | 183   | 85   | 105  | 87   | 115  | 166  | 30.3 | 49.5 | 800                   |

# EYE HOIST HOOK

## TECHNICAL FEATURES

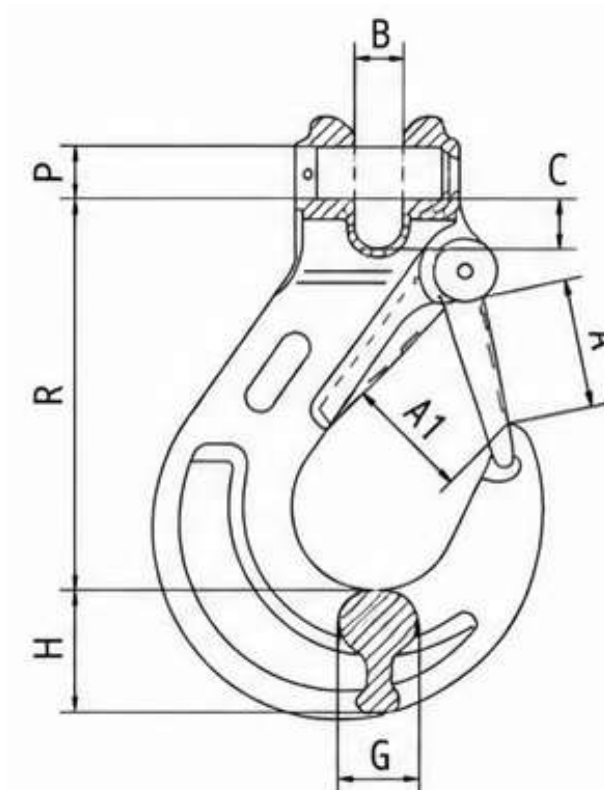


## EYE HOIST HOOK SPECIFICATIONS:

| W.L.L. |        | A    | G    | H     | L     | Weight |
|--------|--------|------|------|-------|-------|--------|
| ALLOY  | CARBON |      |      |       |       |        |
| T      | T      | mm   | mm   | mm    | mm    | kg/pc  |
| 0.75   | 0.5    | 16.5 | 19   | 72    | 97    | 0.21   |
| 1      | 0.75   | 19   | 22   | 82    | 110   | 0.28   |
| 1.5    | 1      | 23   | 23   | 93.5  | 125   | 0.40   |
| 2      | 1.5    | 28   | 24   | 103   | 140.5 | 0.65   |
| 3      | 2      | 31   | 27.5 | 119   | 162   | 0.94   |
| 5      | 3      | 39   | 33   | 146   | 201   | 1.95   |
| 7      | 5      | 51   | 40   | 186.5 | 256   | 3.77   |
| 11     | 7.5    | 62   | 51   | 231.5 | 317   | 6.80   |
| 15     | 10     | 73   | 57   | 261   | 360   | 9.80   |
| 22     | 15     | 89   | 75   | 318   | 434   | 16.25  |
| 30     | 20     | 90   | 82   | 360   | 495.5 | 27.20  |

# G80 CLEVIS SLING HOOK WITH LATCH

## TECHNICAL FEATURES



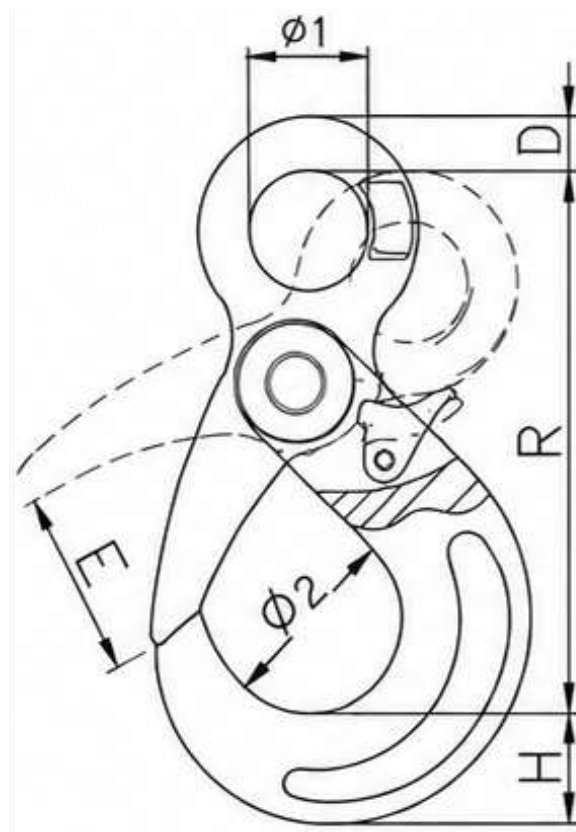
## G80 CLEVIS SLING HOOK WITH LATCH SPECIFICATIONS:

| Size | W.L.L. | A    | A1   | B    | C    | G    | H  | P  | R     | Weight |
|------|--------|------|------|------|------|------|----|----|-------|--------|
| mm   | T      | mm   | mm   | mm   | mm   | mm   | mm | mm | mm    | kg/pc  |
| 6    | 1.12   | 25   | 19   | 6.7  | 8.5  | 14.5 | 20 | 7  | 73    | 0.24   |
| 7/8  | 2      | 29.5 | 24.5 | 8.7  | 9.8  | 19   | 27 | 9  | 86.3  | 0.53   |
| 10   | 3.15   | 35.7 | 29   | 12.2 | 13.5 | 23.5 | 33 | 13 | 105   | 0.95   |
| 13   | 5.3    | 43.5 | 35   | 15.3 | 17   | 28.5 | 40 | 16 | 128.5 | 1.67   |
| 16   | 8      | 56   | 45   | 18   | 22   | 37   | 48 | 20 | 165   | 3.00   |
| 20   | 12.5   | 61   | 53   | 23   | 26   | 51   | 52 | 24 | 183   | 5.70   |
| 22   | 15     | 72   | 62   | 24.5 | 29   | 50   | 62 | 27 | 213   | 8.80   |
| 26   | 21.2   | 77   | 73   | 30   | 34   | 60   | 75 | 30 | 230   | 13.50  |

## G80 EUROPEAN TYPE EYE SELF-LOCKING HOOK

### TECHNICAL FEATURES

- ♦ Yellow painted, other colour is available as per request.
- ♦ Working load limit permanently shown on the body.
- ♦ Max Proof Load is 2.5 times of the W.L.L.
- ♦ Min. Breaking strength is 4 times of the W.L.L.



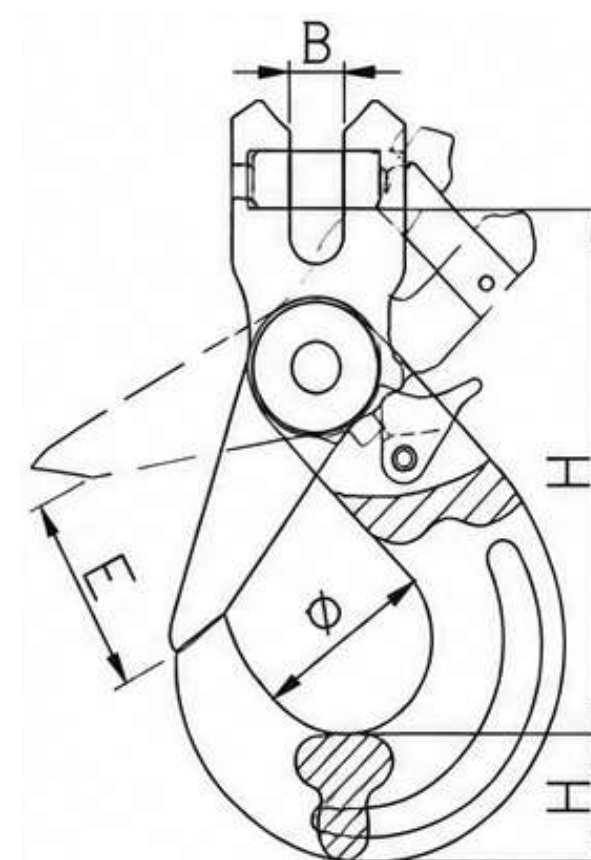
### EYE SELF-LOCKING HOOK SPECIFICATIONS:

| Size<br>(t) | W.L.L.<br>(t) | B.L.<br>(t) | Dimension (mm) |       |      |     |      |     | Weight<br>(kg/pc) |
|-------------|---------------|-------------|----------------|-------|------|-----|------|-----|-------------------|
|             |               |             | Ø1             | R     | D    | Ø2  | H    | E   |                   |
| 6-8         | 1.12          | 4.48        | 22             | 110.5 | 10   | 34  | 19.5 | 28  | 0.5               |
| 7/8-8       | 2             | 8           | 25             | 136   | 12   | 46  | 24   | 34  | 0.8               |
| 10-8        | 3.15          | 12.6        | 32             | 171   | 15   | 56  | 28.5 | 44  | 1.55              |
| 13-8        | 5.3           | 21.2        | 40.5           | 208.5 | 19.5 | 69  | 40   | 52  | 3.2               |
| 16-8        | 8             | 32          | 56             | 257.5 | 22   | 86  | 50.5 | 60  | 5.74              |
| 20-8        | 12.5          | 50          | 64.5           | 275   | 27   | 100 | 55   | 81  | 8.5               |
| 22-8        | 15            | 60          | 70             | 320   | 30   | 98  | 67   | 82  | 13                |
| 26-8        | 21.2          | 84.8        | 80             | 363   | 34   | 110 | 75   | 110 | 18                |
| 32-8        | 31.5          | 126         | 105            | 472   | 45   | 166 | 97   | 168 | 44.5              |

## G80 EUROPEAN TYPE CLEVIS SELF-LOCKING HOOK

### TECHNICAL FEATURES

- ♦ Yellow painted, other colour is available as per request.
- ♦ Working load limit permanently shown on the body.
- ♦ Max Proof Load is 2.5 times of the W.L.L.
- ♦ Min. Breaking strength is 4 times of the W.L.L.



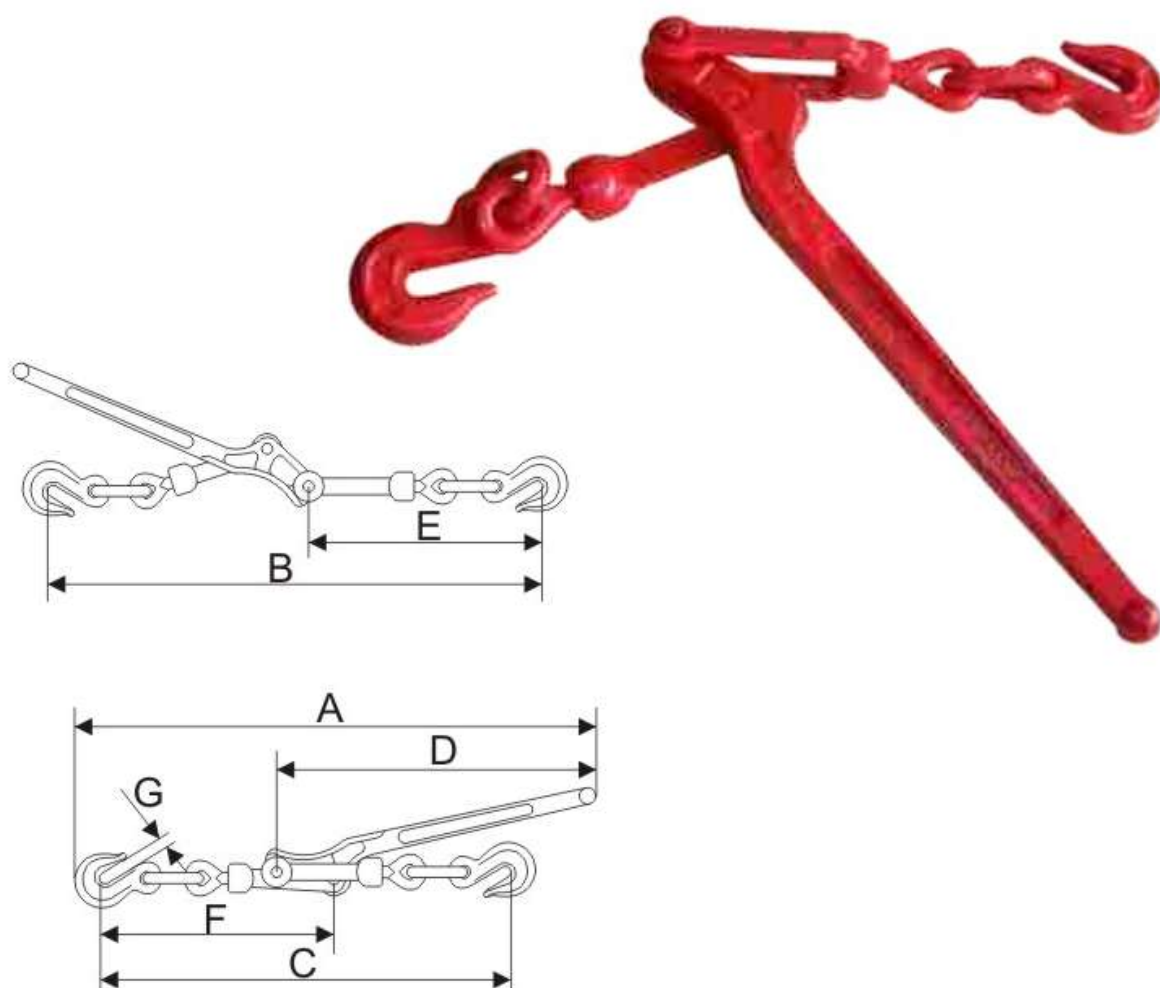
### CLEVIS SELF-LOCKING HOOK SPECIFICATIONS:

| Size<br>(t) | W.L.L.<br>(t) | B.L.<br>(t) | Dimension (mm) |      |      |     |       | Weight<br>(kg/pc) |
|-------------|---------------|-------------|----------------|------|------|-----|-------|-------------------|
|             |               |             | E              | B    | H    | Ø   | R     |                   |
| 6-8         | 1.12          | 4.48        | 29             | 8.5  | 19.5 | 34  | 95.5  | 0.5               |
| 7/8-8       | 2             | 8           | 34             | 9.5  | 24   | 46  | 121   | 0.8               |
| 10-8        | 3.15          | 12.8        | 44             | 12   | 28.5 | 56  | 146   | 1.5               |
| 13-8        | 5.3           | 21.2        | 52             | 15   | 40   | 69  | 182   | 2.8               |
| 16-8        | 8             | 32          | 60             | 18   | 50.5 | 86  | 218   | 5.6               |
| 20-8        | 12.5          | 50          | 83             | 25   | 55   | 100 | 240   | 7.5               |
| 22-8        | 15            | 60          | 88             | 25.5 | 67   | 98  | 276.5 | 11.5              |
| 26-8        | 21.2          | 84.8        | 95.5           | 30   | 75   | 110 | 310.5 | 18.5              |

## LEVER TYPE LOAD BINDER(HOOK)

### TECHNICAL FEATURES

- ♦ Safety, durability designed for all heavy duty transport use.
- ♦ Drop forged steel, high strength.
- ♦ Free 360 degree swivel hooks for easier handling.
- ♦ Heat-treated for extra strength.
- ♦ Each binder individually proof tested.
- ♦ Drop forged or casting is available as requirement.



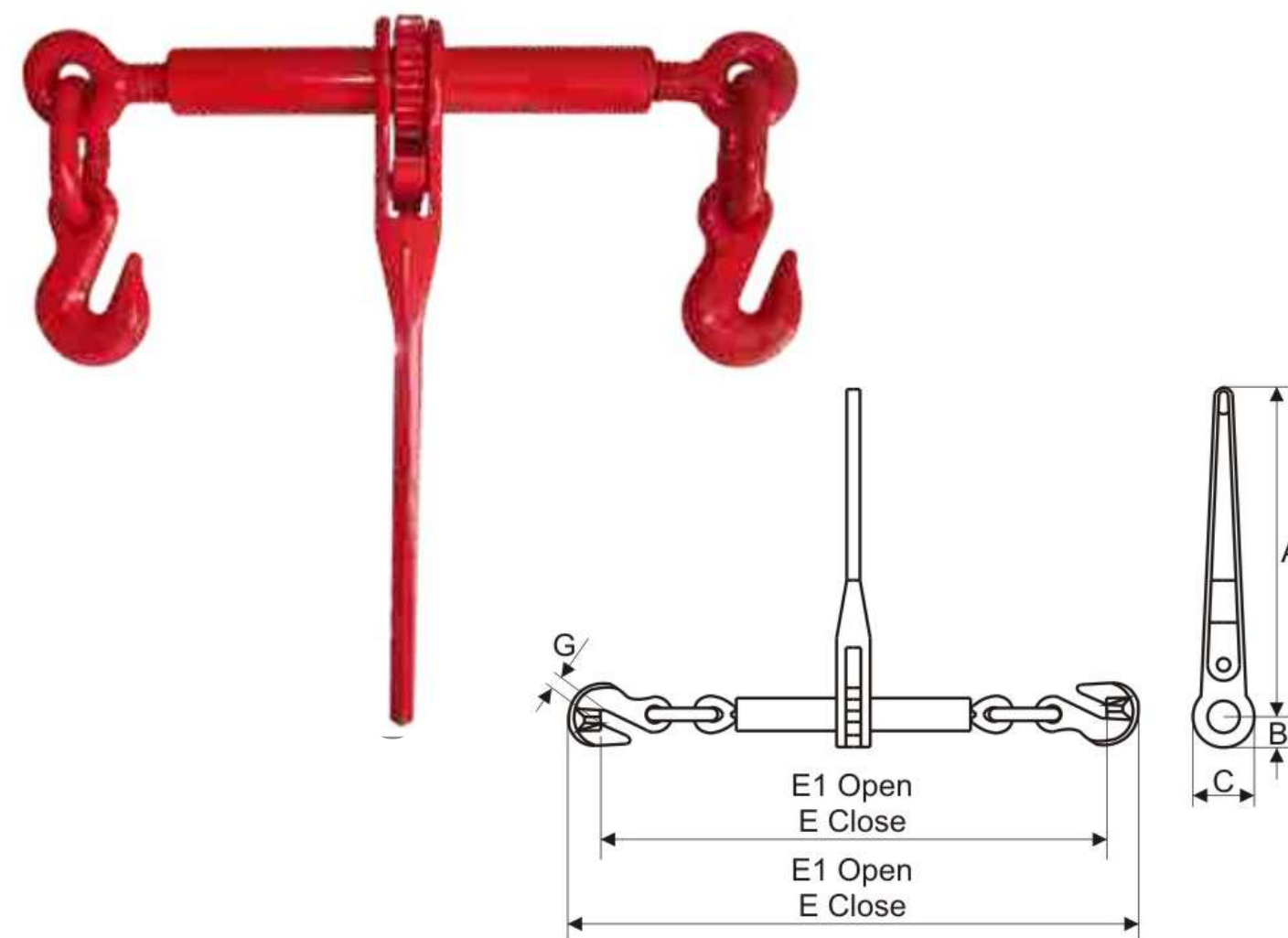
### LEVER TYPE LOAD BINDER(HOOK) SPECIFICATIONS:

| Chain Size (in) | W.L.L.(lbs) | Proof Load(lbs) | Min. Ultimate Load(lbs) | Weight (lbs) | Handle Length (in) | Dimension (in) |       |       |       |       |       |      |
|-----------------|-------------|-----------------|-------------------------|--------------|--------------------|----------------|-------|-------|-------|-------|-------|------|
|                 |             |                 |                         |              |                    | A              | B     | C     | E     | E     | F     | G    |
| 1/4-5/16        | 2600        | 5200            | 7800                    | 3.52         | 11.42              | 18.5           | 17.3  | 14.17 | 11.42 | 8.27  | 8.07  | 0.35 |
| 5/16-3/8        | 5400        | 10800           | 19000                   | 8.37         | 15.43              | 25.2           | 23.2  | 19.49 | 15.55 | 11.22 | 11.22 | 0.51 |
| 3/8-1/2         | 9200        | 18400           | 28000                   | 12.11        | 17.24              | 28.5           | 26.38 | 22.05 | 17.64 | 12.99 | 12.20 | 0.59 |
| 1/2-5/8         | 11000       | 22000           | 44000                   | 19.7         | 21.00              | 33.86          | 30.12 | 25.78 | 20.87 | 14.37 | 14.37 | 0.74 |

## RATCHET TYPE LOAD BINDER

### TECHNICAL FEATURES

- ♦ Safety, reliable design for easy operation.
- ♦ No requirement for locking of handle than lever type load binder
- ♦ High quality drop forged construction.
- ♦ Heat treated for extra strength.
- ♦ Each binder individually proof tested.



### LEVER TYPE LOAD BINDER(HOOK) SPECIFICATIONS:

| Chain Size (in) | W.L.L.(lbs) | Proof Load(lbs) | Min. Ultimate Load(lbs) | Weight (lbs) | Handle Length (in) | Dimension (in) |      |      |       |       |       |       |      |
|-----------------|-------------|-----------------|-------------------------|--------------|--------------------|----------------|------|------|-------|-------|-------|-------|------|
|                 |             |                 |                         |              |                    | A              | B    | C    | E     | E1    | F     | F1    | G    |
| 1/4-5/16        | 2600        | 5200            | 7800                    | 3.52         | 7.16               | 7.16           | 0.89 | 1.77 | 16.22 | 21.26 | 17.79 | 22.83 | 0.35 |
| 5/16-3/8        | 5400        | 10800           | 19000                   | 10.50        | 13.42              | 13.92          | 1.30 | 2.60 | 22.64 | 30.64 | 25.24 | 33.24 | 0.51 |
| 3/8-1/2         | 9200        | 18400           | 33000                   | 12.90        | 13.92              | 13.92          | 1.30 | 2.60 | 24.13 | 32.13 | 27.04 | 35.04 | 0.59 |
| 1/2-5/8         | 13000       | 26000           | 46000                   | 14.38        | 13.92              | 13.92          | 1.30 | 2.60 | 26.45 | 34.45 | 30.07 | 38.07 | 0.74 |

# G80 CHAIN

## TECHNICAL FEATURES

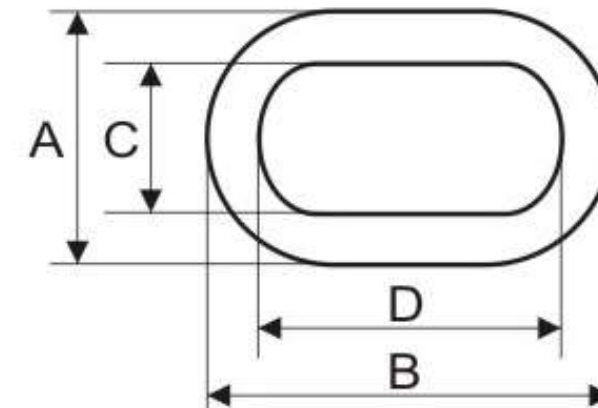


## G80 CHAIN SPECIFICATIONS:

| Size<br>MM | IL<br>MM | IW<br>MM | Weight/M<br>KGS | Working<br>Load<br>Ton | TEST<br>LOAD<br>KN | Breaking<br>Load<br>KN |
|------------|----------|----------|-----------------|------------------------|--------------------|------------------------|
| 6MM        | 18       | 7.5      | 0.79            | 1.1                    | 27                 | 45.2                   |
| 7.1MM      | 21       | 9        | 1.07            | 1.5                    | 37                 | 61.6                   |
| 8MM        | 24       | 10       | 1.38            | 2                      | 48                 | 80.4                   |
| 9MM        | 27       | 10.8     | 1.75            | 2.5                    | 62.5               | 101.7                  |
| 10MM       | 30       | 12.5     | 2.2             | 3.2                    | 76                 | 125                    |
| 11MM       | 33       | 12.6     | 2.33            | 3.8                    | 92                 | 154                    |
| 12MM       | 36       | 15       | 3.1             | 4.6                    | 109                | 181                    |
| 13MM       | 39       | 16.3     | 3.8             | 5                      | 128                | 214                    |
| 14MM       | 42       | 18       | 4.13            | 6.3                    | 150                | 250                    |
| 16MM       | 48       | 20       | 5.63            | 8                      | 192                | 320                    |
| 18MM       | 54       | 23       | 6.85            | 10                     | 246                | 410                    |
| 19MM       | 57       | 23.7     | 7.7             | 11.3                   | 270                | 450                    |
| 20MM       | 60       | 25       | 8.6             | 12.5                   | 300                | 500                    |
| 22MM       | 66       | 28       | 10.6            | 15.3                   | 360                | 610                    |
| 25MM       | 86       | 35       | 11.6            | 18                     | 432                | 720                    |
| 26MM       | 78       | 35       | 15              | 21.3                   | 510                | 850                    |
| 28MM       | 106      | 42       | 17.3            | 24.5                   | 590                | 980                    |
| 30MM       | 108      | 45       | 18.3            | 28.3                   | 678                | 1130                   |
| 32MM       | 116      | 48       | 22.1            | 32.2                   | 772                | 1286                   |

# ALUMINIUM SLEEVE

## TECHNICAL FEATURES



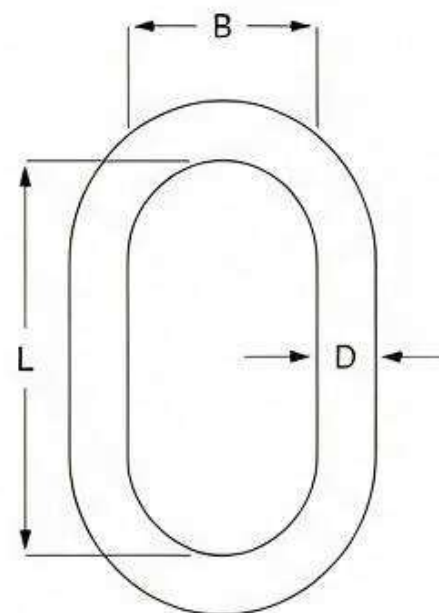
## ALUMINIUM SLEEVE SPECIFICATIONS:

| Rope Dia. (mm) | Dimension (mm) |      |      |      | Length (mm) | N.W. (g/pc) |
|----------------|----------------|------|------|------|-------------|-------------|
|                | A              | B    | C    | D    |             |             |
| 1              | 3              | 4.3  | 1.3  | 2.6  | 5           | 0.11        |
| 1.5            | 3.5            | 5.3  | 1.8  | 3.6  | 6           | 0.21        |
| 2              | 4.5            | 6.9  | 2.4  | 4.8  | 7           | 0.24        |
| 2.5            | 5.1            | 8.1  | 3.0  | 6.0  | 9           | 0.50        |
| 3              | 6.1            | 9.6  | 3.5  | 7.0  | 11          | 0.84        |
| 3.5            | 7.0            | 11.0 | 4.0  | 8.0  | 13          | 1.32        |
| 4              | 7.9            | 12.4 | 4.5  | 9.0  | 14          | 1.81        |
| 4.5            | 8.9            | 14.0 | 5.1  | 10.2 | 16          | 2.61        |
| 5              | 9.8            | 15.4 | 5.6  | 11.2 | 18          | 3.57        |
| 6              | 11.6           | 18.2 | 6.6  | 13.2 | 21          | 5.86        |
| 6.5            | 12.6           | 19.8 | 7.2  | 14.4 | 23          | 7.85        |
| 7              | 13.6           | 21.4 | 7.8  | 15.6 | 25          | 9.53        |
| 8              | 15.4           | 24.2 | 8.8  | 17.6 | 28          | 13.7        |
| 9              | 17.3           | 27.2 | 9.9  | 19.8 | 32          | 19.8        |
| 10             | 19.1           | 30.0 | 10.9 | 21.8 | 35          | 26.4        |
| 11             | 21.1           | 33.2 | 12.1 | 24.2 | 39          | 35.6        |
| 12             | 23.0           | 36.2 | 13.2 | 26.4 | 42          | 45.8        |
| 13             | 25.0           | 39.2 | 14.2 | 28.4 | 46          | 59.7        |
| 14             | 26.0           | 42.2 | 15.3 | 30.5 | 49          | 73.5        |

| Rope Dia. (mm) | Dimension (mm) |       |      |       | Length (mm) | N.W. (g/pc) |
|----------------|----------------|-------|------|-------|-------------|-------------|
|                | A              | B     | C    | D     |             |             |
| 16             | 30.9           | 48.4  | 17.5 | 35.0  | 56          | 111         |
| 18             | 34.8           | 54.4  | 19.6 | 39.2  | 63          | 159         |
| 20             | 38.5           | 60.2  | 21.7 | 43.4  | 70          | 217         |
| 22             | 42.7           | 67.0  | 24.3 | 48.6  | 77          | 292         |
| 24             | 46.4           | 72.8  | 26.4 | 52.8  | 84          | 376         |
| 26             | 50.3           | 78.8  | 28.5 | 57.0  | 91          | 481         |
| 28             | 54.5           | 85.4  | 31.0 | 62.0  | 98          | 603         |
| 30             | 58.1           | 91.2  | 33.0 | 66.2  | 105         | 735         |
| 32             | 62.0           | 97.5  | 35.2 | 70.4  | 112         | 897         |
| 34             | 66.2           | 104   | 37.8 | 75.6  | 119         | 1082        |
| 36             | 69.8           | 109.6 | 39.8 | 79.6  | 126         | 1275        |
| 38             | 73.5           | 115.4 | 41.9 | 83.8  | 133         | 1503        |
| 40             | 77.2           | 121.2 | 44.0 | 88.0  | 140         | 1734        |
| 42             | 81.2           | 127.4 | 46.2 | 92.4  | 147         | 2024        |
| 44             | 85             | 133.4 | 48.4 | 96.8  | 154         | 2600        |
| 46             | 89             | 139.6 | 50.6 | 101.2 | 161         | 2662        |
| 48             | 92.8           | 145.6 | 52.8 | 105.6 | 168         | 3010        |
| 52             | 100.4          | 157.6 | 57.2 | 114.4 | 182         | 3960        |
| 54             | 104.4          | 163.8 | 59.4 | 118.8 | 189         | 4293        |
| 56             | 108.2          | 169.8 | 61.6 | 123.2 | 196         | 6120        |

# GRADE 8 MASTER LINKS

## TECHNICAL FEATURES

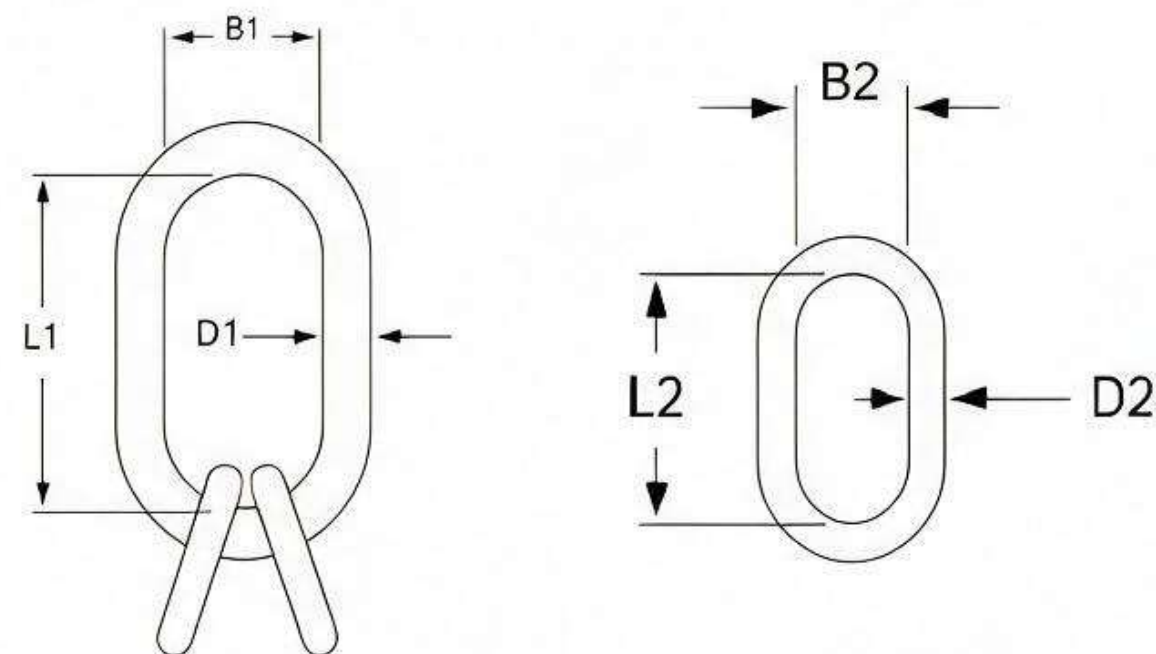


## GRADE 8 MASTER LINKS SPECIFICATIONS:

| Part No. | D (mm) | L (mm) | B (mm) | W.L.L.(Tonnes) | Minimum Factor of Safety | Weight (Kgs/each) |
|----------|--------|--------|--------|----------------|--------------------------|-------------------|
| 11B4     | 11     | 83     | 40     | 2.1            | 4                        | 0.2               |
| 13B5     | 13     | 95     | 54     | 2.7            | 4                        | 0.3               |
| 13B6     | 13     | 115    | 60     | 2.7            | 4                        | 0.4               |
| 16B6     | 16     | 190    | 70     | 4.1            | 4                        | 0.6               |
| 16B7     | 16     | 190    | 100    | 5.4            | 4                        | 0.9               |
| 20B6     | 20     | 150    | 82     | 6.7            | 4                        | 1.1               |
| 20B7     | 20     | 170    | 90     | 8.2            | 4                        | 1.3               |
| 22B6     | 22     | 170    | 90     | 8.2            | 4                        | 1.6               |
| 22B7     | 22     | 190    | 100    | 9.5            | 4                        | 1.9               |
| 22B8     | 22     | 210    | 110    | 11.5           | 4                        | 2.5               |
| 25B6     | 25     | 200    | 103    | 10.7           | 4                        | 2.7               |
| 25B7     | 25     | 220    | 110    | 12.9           | 4                        | 3.2               |
| 28B6     | 28     | 210    | 112.5  | 12.9           | 4                        | 3.2               |
| 28B7     | 28     | 240    | 120    | 15.4           | 4                        | 4                 |
| 32B6     | 32     | 240    | 140    | 18             | 4                        | 5.5               |
| 32B7     | 32     | 270    | 140    | 21.4           | 4                        | 6.3               |
| 38B6     | 38     | 270    | 140    | 28.1           | 4                        | 7.6               |
| 38B7     | 38     | 290    | 170    | 32.4           | 4                        | 9.3               |
| 45B6     | 45     | 320    | 170    | 38.3           | 4                        | 12.5              |
| 45B7     | 45     | 370    | 200    | 45             | 4                        | 17.5              |
| 50B6     | 50     | 380    | 200    | 45             | 4                        | 18                |
| 50B7     | 50     | 400    | 200    | 56.3           | 4                        | 23                |
| 60B6     | 60     | 450    | 250    | 70.4           | 4                        | 29                |
| 70B6     | 70     | 500    | 250    | 84.4           | 4                        | 43.2              |

# GRADE 8 QUAD ASSEMBLIES

## TECHNICAL FEATURES



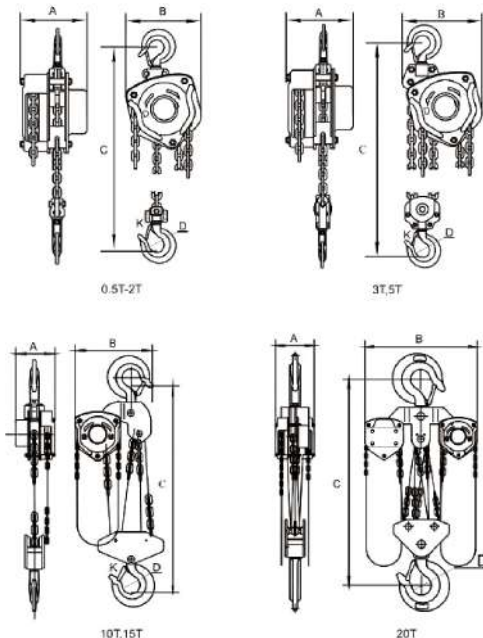
## GRADE 8 QUAD ASSEMBLIES SPECIFICATIONS:

| Part No.     | D 1 mm | L 1 mm | B 1 mm | D 2 mm | L 2 mm | B 2 mm | W.L.L. Tonnes | Minimum Factor of Safety | Weight Kgs/each |
|--------------|--------|--------|--------|--------|--------|--------|---------------|--------------------------|-----------------|
| <b>Q16B</b>  | 16     | 120    | 70     | 13     | 95     | 51     | <b>4.1</b>    | 4.0                      | 1.2             |
| <b>Q20B</b>  | 20     | 170    | 90     | 16     | 120    | 70     | <b>6.5</b>    | 4.0                      | 2.5             |
| <b>Q22B</b>  | 22     | 170    | 90     | 20     | 150    | 80     | <b>8.2</b>    | 4.0                      | 2.8             |
| <b>Q22B8</b> | 22     | 270    | 140    | 16     | 120    | 70     | <b>5.8</b>    | 4.0                      | 3.5             |
| <b>Q25B</b>  | 25     | 190    | 100    | 20     | 150    | 80     | <b>10.7</b>   | 4.0                      | 4.9             |
| <b>Q28B</b>  | 28     | 210    | 110    | 22     | 170    | 90     | <b>12.9</b>   | 4.0                      | 6.4             |
| <b>Q32B</b>  | 32     | 270    | 140    | 25     | 190    | 100    | <b>17.1</b>   | 4.0                      | 10.0            |
| <b>Q38B</b>  | 39     | 270    | 140    | 32     | 270    | 140    | <b>28.1</b>   | 4.0                      | 18.2            |
| <b>Q45B</b>  | 45     | 320    | 170    | 38     | 270    | 140    | <b>38.3</b>   | 4.0                      | 27.7            |
| <b>Q50B</b>  | 50     | 380    | 200    | 38     | 270    | 140    | <b>45.0</b>   | 4.0                      | 33.2            |
| <b>Q60B</b>  | 60     | 430    | 220    | 50     | 380    | 200    | <b>65.3</b>   | 4.0                      | 54.0            |
| <b>Q70B</b>  | 70     | 500    | 250    | 60     | 430    | 220    | <b>84.4</b>   | 4.0                      | 101.2           |

# CHAIN BLOCK

## TECHNICAL FEATURES

- ♦ Alloy steel components with special heat treatment, avoiding sudden break.
- ♦ Automatic Double Pawl Breaking System.
- ♦ Asbestos Free Friction Disc.
- ♦ Industrial Powder Coating meet RoHS requirement.
- ♦ 1500 Cycles life test, Meet JBT7334, EN13157, ANSI B30. 16, AS 1418 Standards.



## CHAIN BLOCK SPECIFICATIONS:

| Model                                |      | 622A-0.5  | 622A-1 | 622A-1.5  | 622A-2   | 622A-3   | 622A-5   | 622A-7.5 | 622A-10  | 622A-15  | 622A-20  | 622A-30  |
|--------------------------------------|------|-----------|--------|-----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Capacity                             | tons | 0.5       | 1      | 1.5       | 2        | 3        | 5        | 7.5      | 10       | 15       | 20       | 30       |
| Standard lift                        | m    | 3         | 3      | 3         | 3        | 3        | 3        | 3        | 3        | 3        | 3        | 3        |
| Running test load                    | KN   | 7.5       | 15     | 22.5      | 30       | 45       | 75       | 112.5    | 150      | 225      | 300      | 450      |
| Effort required to lift rated load   | N    | 225       | 300    | 310       | 300      | 350      | 400      | 415      | 410      | 420      | 410*2    | 410*2    |
| Diameter of load chain               | mm   | 5         | 6      | 7.1       | 8        | 8        | 9        | 10       | 10       | 10       | 9        | 10       |
| Strands of load chain                |      | 1         | 1      | 1         | 2        | 2        | 2        | 3        | 4        | 6        | 8        | 12       |
| Dimensions (mm)                      | A    | 132       | 152    | 152       | 152      | 152      | 185      | 185      | 185      | 189      | 194      | 224      |
|                                      | B    | 152       | 157    | 180       | 180      | 170      | 207      | 207      | 267      | 267      | 380      | 440      |
|                                      | C    | 315       | 355    | 375       | 375      | 405      | 430      | 500      | 500      | 680      | 680      | 1100     |
|                                      | D    | 34        | 38     | 48        | 48       | 48       | 48       | 50       | 50       | 57       | 57       | 120      |
|                                      | K    | 27        | 27     | 36        | 36       | 36       | 36       | 38       | 38       | 48       | 48       | 80       |
| Net weight                           | kg   | 8.5       | 11     | 13.5      | 14.5     | 14.5     | 17.5     | 20.5     | 23       | 36.5     | 39.5     | 246      |
| Packing measurement                  | cm   | 245x18x18 | 251x19 | 315x21x19 | 31x20x19 | 31x23x23 | 34x24x19 | 49x29x23 | 47x42x23 | 47x42x22 | 97x48x23 | 80x70x23 |
| Extra weight per metre of Extra lift | kg   | 1.3       | 1.6    | 2         | 2.3      | 2.2      | 2.3      | 3.2      | 3.7      | 4.5      | 5.3      | 28.2     |

# WEBBING SLINGS

## TECHNICAL FEATURES

- ♦ **Type:** Double Ply Polyester Webbing Sing with Reinforced Lifting Eyes.
- ♦ **Technical Specifications:** Colour coded according to EN 1492-1
- ♦ Safety Factor (SF) 7:1
- ♦ **Characteristics:** Low Elongation
- ♦ **Norms:** According to Machinery Directive 2006/42/EC and EN 1492-1

## LIFTING EYE TYPES

1. Flat Eye
2. Reversed Eye
3. Folded Eye 1/2 Width from 1 Side
4. Folded Eye 1/2 Width from 2 Sides
5. Folded Eye 1/3 Width



## WEBBING SLINGS SPECIFICATIONS:



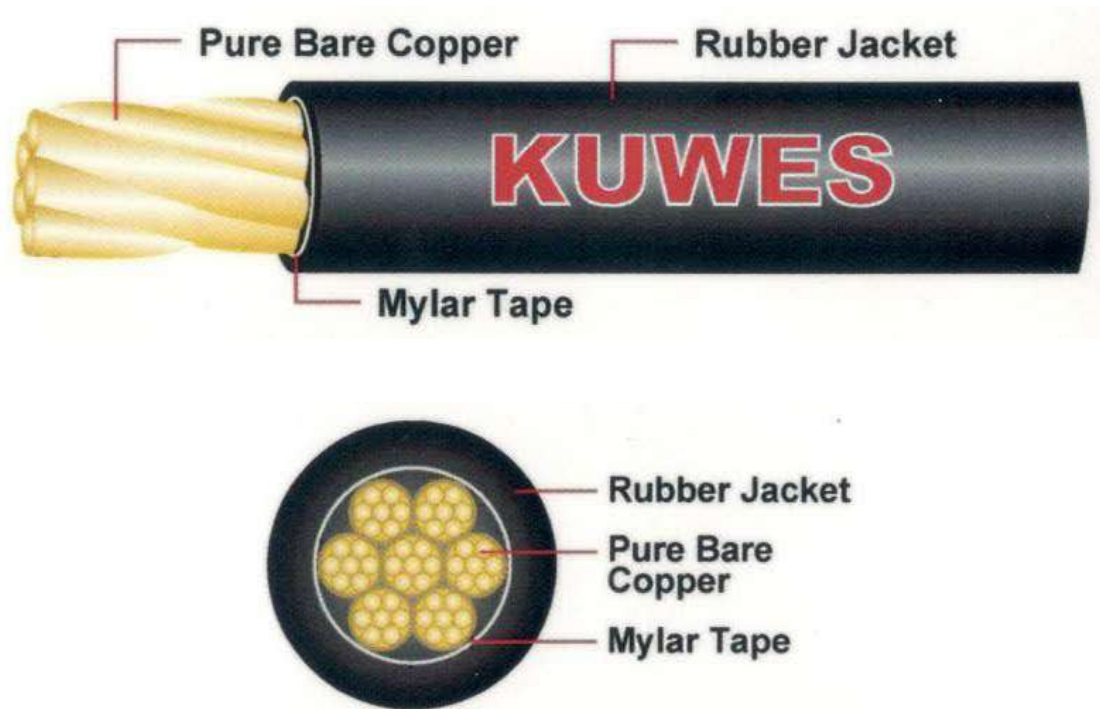
|  |                                                                                       |                 |               | WORKING LOAD LIMIT IN Kgs<br>WITH ONE WEBBING SLING                                   |                                                                                       |                                                                                       |                                                                                       |                                                                                       |
|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------------|---------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|                                                                                       |                                                                                       |                 |               | STRAIGHT<br>LIFT                                                                      | CHOKED<br>LIFT                                                                        | LIFTING AT AN ANGLE $\beta$                                                           |                                                                                       |                                                                                       |
|                                                                                       |                                                                                       |                 |               |                                                                                       |                                                                                       | 0°- 7°                                                                                | 7°- 45°                                                                               | 45°- 60°                                                                              |
|                                                                                       |                                                                                       |                 |               |  |  |  |  |  |
| REF. NO.                                                                              | COLOR                                                                                 | W.L.L.<br>(Kgs) | WIDTH<br>(mm) | 1.0                                                                                   | 0.8                                                                                   | 2.0                                                                                   | 1.4                                                                                   | 1.0                                                                                   |
| DP71/RE/1                                                                             |  | 1,000           | 25            | 1,000                                                                                 | 800                                                                                   | 2,000                                                                                 | 1,400                                                                                 | 1,000                                                                                 |
| DP71/RE/2                                                                             |  | 2,000           | 50            | 2,000                                                                                 | 1,600                                                                                 | 4,000                                                                                 | 2,800                                                                                 | 2,000                                                                                 |
| DP71/RE/3                                                                             |  | 3,000           | 75            | 3,000                                                                                 | 2,400                                                                                 | 6,000                                                                                 | 4,200                                                                                 | 3,000                                                                                 |
| DP71/RE/4                                                                             |  | 4,000           | 100           | 4,000                                                                                 | 3,200                                                                                 | 8,000                                                                                 | 5,600                                                                                 | 4,000                                                                                 |
| DP71/RE/5                                                                             |  | 5,000           | 125           | 5,000                                                                                 | 4,000                                                                                 | 10,000                                                                                | 7,000                                                                                 | 5,000                                                                                 |
| DP71/RE/6                                                                             |  | 6,000           | 150           | 6,000                                                                                 | 4,800                                                                                 | 12,000                                                                                | 8,400                                                                                 | 6,000                                                                                 |
| DP71/RE/8                                                                             |  | 8,000           | 200           | 8,000                                                                                 | 6,400                                                                                 | 16,000                                                                                | 11,200                                                                                | 8,000                                                                                 |
| DP71/RE/10                                                                            |  | 10,000          | 250           | 10,000                                                                                | 8,000                                                                                 | 20,000                                                                                | 14,000                                                                                | 10,000                                                                                |
| DP71/RE/12                                                                            |  | 12,000          | 300           | 12,000                                                                                | 9,600                                                                                 | 24,000                                                                                | 16,800                                                                                | 12,000                                                                                |



# RUBBER WELDING CABLE BLACK

## TECHNICAL FEATURES

- ◆ Kuwes Brand - Made in Taiwan
- ◆ Rubber Welding Cable - Regular Quality
- ◆ Single Insulation: Black Color
- ◆ Pure Copper Conductor



## WELDING CABLE SPECIFICATIONS:

| Specification                            | 25mm                                                                                      | 35mm               | 50mm               | 70mm               | 95mm               | 120mm              |
|------------------------------------------|-------------------------------------------------------------------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 1. Construction                          |                                                                                           |                    |                    |                    |                    |                    |
| (1) Markings                             | Kuwes No.0250 Welding Cable 25mm (35/50/70/95/120mm) Made In Taiwan www.kuwescable.com.tw |                    |                    |                    |                    |                    |
| (2) Overall Diameter                     | 10.5mm                                                                                    | 12.0mm             | 13.7mm             | 16.0mm             | 18.0mm             | 20.0mm             |
| (3) Thickness Of Sheath                  | Material                                                                                  | Nature Rubber (NR) | Nature Rubber (NR) | Nature Rubber (NR) | Nature Rubber (NR) | Nature Rubber (NR) |
|                                          | Average                                                                                   | Min. 2.88mm        | Min. 3.15mm        | Min. 3.42mm        | Min. 3.96mm        | Min. 4.41mm        |
|                                          | Min. At Any Point                                                                         | Min. 2.53mm        | Min. 2.80mm        | Min. 3.02mm        | Min. 3.52mm        | Min. 3.92mm        |
| (4) Thickness Of Separator               | Mylar Tape                                                                                | Mylar Tape         | Mylar Tape         | Mylar Tape         | Mylar Tape         | Mylar Tape         |
|                                          | 0.025mm                                                                                   | 0.025mm            | 0.025mm            | 0.025mm            | 0.025mm            | 0.025mm            |
| (5) Construction Of Annealed Copper Wire | 390/0.18mm                                                                                | 553/0.18mm         | 791/0.18mm         | 1106/0.18mm        | 1501/0.18mm        | 1887/0.18mm        |
|                                          | Pure Copper                                                                               | Pure Copper        | Pure Copper        | Pure Copper        | Pure Copper        | Pure Copper        |
| 2. Electrical Properties (At 20°C)       |                                                                                           |                    |                    |                    |                    |                    |
| (1) Voltage Test                         | Ac 1kv/1 Min.                                                                             | Ac 1kv/1 Min.      | Ac 1kv/1 Min.      | Ac 1kv/1 Min.      | Ac 1kv/1 Min.      | Ac 1kv/1 Min.      |
| (2) Conductor Resistance                 | Max. 1.878 Ohm/km                                                                         | Max. 1.324 Ohm/km  | Max. 0.926 Ohm/km  | Max. 0.662 Ohm/km  | Max. 0.488 Ohm/km  | Max. 0.388 Ohm/km  |
| 3. Physical Properties                   |                                                                                           |                    |                    |                    |                    |                    |
| (1) Tensile Strength Min. 0.8 Kg/mm²     | 0.85                                                                                      | 0.85               | 0.85               | 0.85               | 0.85               | 0.85               |
| (2) Elongation Min. 250%                 | 320                                                                                       | 320                | 320                | 320                | 320                | 320                |
| (3) Air Oven                             | Condition                                                                                 | At 90°C x 96 hrs   | At 90°C x 96 hrs   | At 90°C x 96 hrs   | At 90°C x 96 hrs   | At 90°C x 96 hrs   |
|                                          | Tensile Strength Min. 50% Unaged                                                          | 88.7               | 85.1               | 84.9               | 85.6               | 86.0               |
|                                          | Elongation Min. 50% Unaged                                                                | 55.3               | 58.2               | 54.7               | 60.1               | 60.0               |
|                                          |                                                                                           |                    |                    |                    |                    |                    |
| 4. Safety Current                        | Load Continue                                                                             | 55 A               | 80 A               | 95 A               | 120 A              | 150 A              |
|                                          | Load 50%                                                                                  | 80 A               | 100 A              | 135 A              | 175 A              | 220 A              |
| 5. Max. Temperature                      | - 30°C~ 60°C                                                                              | - 30°C~ 60°C       | - 30°C~ 60°C       | - 30°C~ 60°C       | - 30°C~ 60°C       | - 30°C~ 60°C       |



# FULLBODY HARNESS

## TECHNICAL FEATURES

- ◆ Webbing Made of High quality Dope dyed polyester yarn.
- ◆ Fall indicator to stop reuse of harness after a major fall.
- ◆ Dual Color scheme for easy identification.
- ◆ Adjustable shoulder, chest and thigh straps.
- ◆ Ideally positioned sit strap for extended comfort.
- ◆ High quality alloy steel, zinc plated metal components, free from any sharp edges.
- ◆ Webbing is 44 mm wide with a Breaking strength of 23 kN
- ◆ CE Certified to EN 361



# ENERGY ABSORBING LANYARD

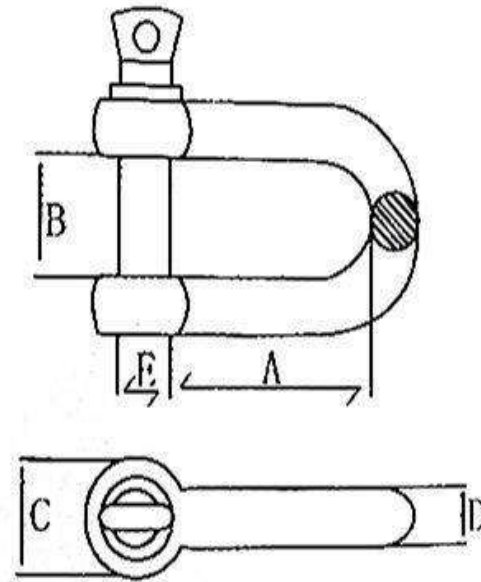
## TECHNICAL FEATURES

- ◆ Webbing Made of High quality Dope dyed polyester yarn.
- ◆ Screw locking karabiner at one end and two scaffolding hooks at the other end.
- ◆ Webbing is 44 mm wide with a Breaking strength of 23 kN
- ◆ Length 1.8 mtr from karabiner to scaffolding hooks.
- ◆ CE Certified to EN 354, EN 355 and EN 362



# STAINLESS STEEL SHACKLE

## TECHNICAL FEATURES

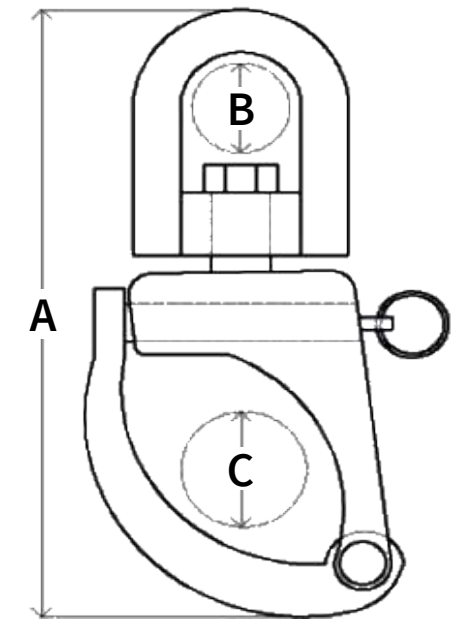


## STAINLESS STEEL SHACKLE SPECIFICATIONS:

| ITEM NO        | SIZE | A   |     | B  |     | C  |     | D  |     | E  |     | W. L. L | K. L. L |
|----------------|------|-----|-----|----|-----|----|-----|----|-----|----|-----|---------|---------|
|                | mm   | Eu  | JIS | Eu | JIS | Eu | JIS | Eu | JIS | Eu | JIS | Ton     | Ton     |
| LK0063-A/B0004 | 4    | 16  | 14  | 8  | 8   | 8  | 8   | 4  | 4   | 4  | 4   | 0.15    | 0.15    |
| LK0063-A/B0005 | 5    | 20  | 16  | 10 | 10  | 10 | 10  | 5  | 5   | 5  | 5   | 0.24    | 0.24    |
| LK0063-A/B0006 | 6    | 24  | 22  | 12 | 12  | 12 | 12  | 6  | 6   | 6  | 6   | 0.346   | 0.346   |
| LK0063-A/B0008 | 8    | 32  | 27  | 16 | 16  | 16 | 16  | 8  | 8   | 8  | 8   | 0.6     | 0.6     |
| LK0063-A/B0010 | 10   | 40  | 31  | 20 | 20  | 20 | 20  | 10 | 10  | 10 | 10  | 1.16    | 1.16    |
| LK0063-A/B0012 | 12   | 48  | 40  | 24 | 24  | 24 | 24  | 12 | 12  | 12 | 12  | 1.40    | 1.40    |
| LK0063-A/B0014 | 14   | 56  | 46  | 28 | 28  | 28 | 28  | 14 | 14  | 14 | 14  | 2.00    | 2.00    |
| LK0063-A/B0016 | 16   | 64  | 52  | 32 | 32  | 32 | 32  | 16 | 16  | 16 | 16  | 2.65    | 2.65    |
| LK0063-A/B0018 | 18   | 72  | 58  | 36 | 36  | 36 | 36  | 18 | 18  | 18 | 18  | 3.00    | 3.00    |
| LK0063-A/B0020 | 20   | 76  | 64  | 40 | 40  | 40 | 40  | 20 | 20  | 20 | 20  | 3.50    | 3.50    |
| LK0063-A/B0022 | 22   | 88  | 75  | 44 | 44  | 44 | 44  | 22 | 22  | 22 | 22  | 4.05    | 4.05    |
| LK0063-A/B0025 | 25   | 100 | 83  | 50 | 50  | 50 | 50  | 25 | 25  | 25 | 25  | 5.00    | 5.00    |
| LK0063-A/B0028 | 28   | 112 | 96  | 56 | 56  | 56 | 56  | 28 | 28  | 28 | 28  | 7.00    | 7.00    |
| LK0063-A/B0032 | 32   | 128 | 114 | 64 | 64  | 64 | 64  | 32 | 32  | 32 | 32  | 8.00    | 8.00    |
| LK0063-A/B0036 | 36   | 144 | 116 | 72 | 72  | 72 | 72  | 36 | 36  | 36 | 36  | 8.00    | 8.50    |
| LK0063-A/B0038 | 38   | 152 | 152 | 76 | 76  | 76 | 76  | 38 | 38  | 38 | 38  |         | 10.00   |

# STAINLESS STEEL EYE SWIVEL SNAP SHACKLE

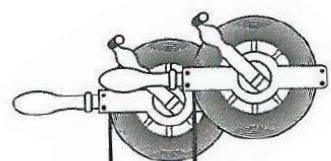
## TECHNICAL FEATURES



## EYE SWIVEL SNAP SHACKLE SPECIFICATIONS:

| ITEM NO        | A   | B  | C  | WLL  | WT    |
|----------------|-----|----|----|------|-------|
|                | mm  | mm | mm | mm   | KGS   |
| LK0039-A/B0012 | 70  | 12 | 12 | 0.45 | 0.064 |
| LK0039-A/B0016 | 87  | 16 | 16 | 0.65 | 0.12  |
| LK0039-A/B0022 | 128 | 22 | 22 | 0.95 | 0.34  |

## WATER FINDING PASTE



**KOLOR KUT WATER FINDING PASTE** is golden brown in color and turns brilliant red upon contact with water. This product will successfully gauge water content in all petroleum and hydrocarbons as well as sulfuric acid, nitric acid, hydrochloric acid, ammonia, soap solutions, salt and other chloride solutions.



### DIRECTIONS FOR USE

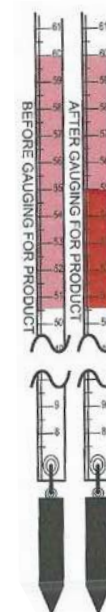
Place a thin film of KOLOR KUT WATER FINDING PASTE on a clean gauge line or rod approximately where water level is expected to appear. Lower tape into tank until bottom is reached. Level will appear by positive contrast of colors, instantaneous in gasoline, diesel, kerosene and gas oils. Heavy oils require a few seconds.



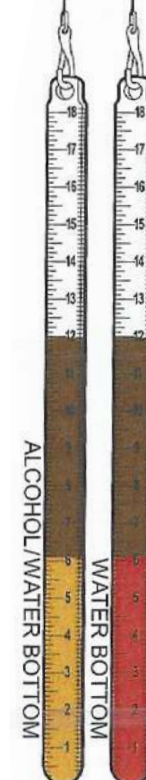
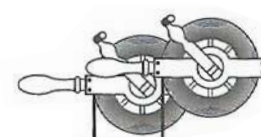
## GASOLINE GAUGING PASTE

**KOLOR KUT GASOLINE GAUGING PASTE** is light pink in colour and turns red upon contact with gasoline, diesel, naphtha, kerosene, gas oil, crude oil, jet fuels, and other hydrocarbons. A most effective product level indicator.

Store at temperature range of 35° F to 115° F for preservation of product.



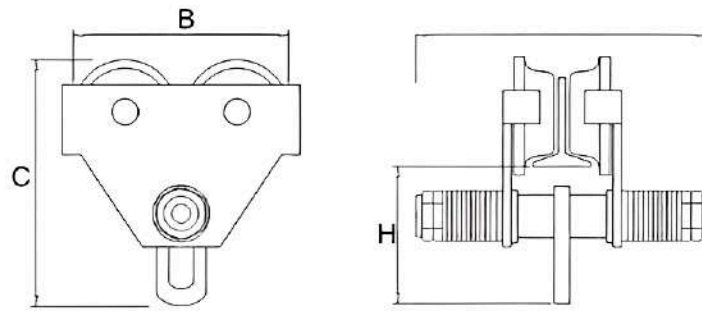
## MODIFIED WATER FINDING PASTE



**KOLOR KUT MODIFIED WATER FINDING PASTE** has been designed for use in Methanol, Ethanol enriched fuel systems. Alcohols are soluble in fuels in all proportions when they are water-free but relatively small amounts of water can cause separation of alcohol from the fuel. The mixture settling to the bottom of the storage tank contains a high concentration of alcohol and cannot be detected by most water detection pastes.

**KOLOR KUT MODIFIED WATER FINDING PASTE** color to bright red on contact with water. Phase separated alcohol solutions with as little as 6% water will turn the paste yellow. This product is designed for use in reformulated and oxygenated fuel systems. After testing, it seems that alcohol or deicing agents in fuels have very little effect on the performance of the product.

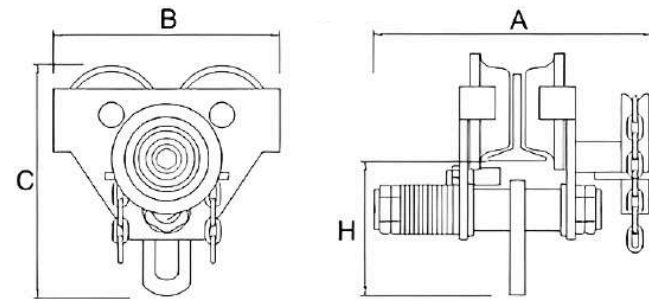
## PLAIN TROLLEY



### PLAIN TROLLEY SPECIFICATIONS:

| Capacity<br>t | I-beam Width<br>mm | Min. turning radius<br>m | Weight<br>mm | A<br>mm | B<br>mm | C<br>mm | H<br>mm |
|---------------|--------------------|--------------------------|--------------|---------|---------|---------|---------|
| 0.5           | 68-126             | 0.9                      | 6            | 208     | 212     | 190     | 108     |
| 1.0           | 80-146             | 1.0                      | 9.5          | 246     | 239     | 214     | 120     |
| 2.0           | 80-168             | 1.1                      | 14.6         | 280     | 270     | 248     | 145     |
| 3.0           | 88-168             | 1.3                      | 24           | 300     | 319     | 323     | 200     |
| 5.0           | 100-170            | 1.4                      | 36           | 316     | 346     | 357     | 210     |
| 10            | 122-203            | 1.7                      | 83           | 343     | 475     | 400     | 230     |
| 20            | 136-203            | 5.0                      | 235          | 475     | 642     | 622     | 315     |

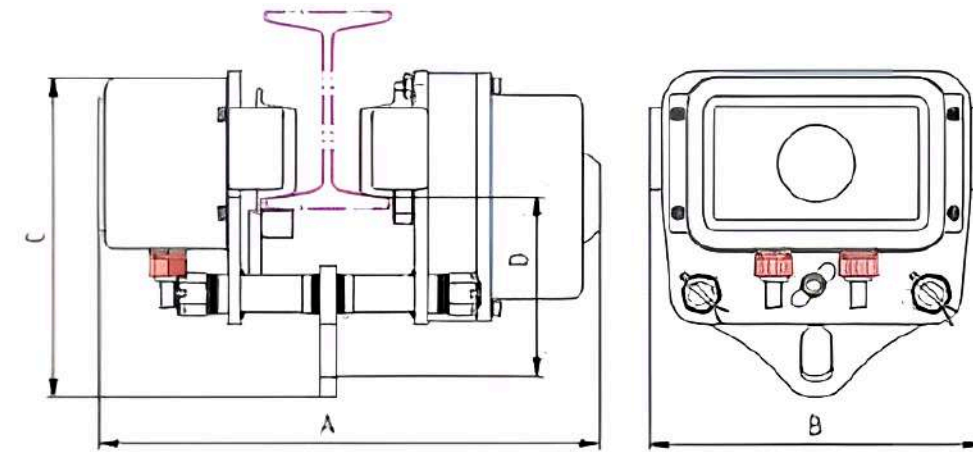
## GEARED TROLLEY



### GEARED TROLLEY SPECIFICATIONS:

| Capacity<br>t | I-beam Width<br>mm | Min. turning radius<br>m | Weight<br>mm | A<br>mm | B<br>mm | C<br>mm | H<br>mm |
|---------------|--------------------|--------------------------|--------------|---------|---------|---------|---------|
| 0.5           | 68-126             | 0.9                      | 10           | 280     | 212     | 190     | 108     |
| 1.0           | 80-146             | 1.0                      | 13.5         | 280     | 239     | 214     | 120     |
| 2.0           | 80-168             | 1.1                      | 19           | 310     | 270     | 248     | 145     |
| 3.0           | 88-168             | 1.3                      | 29           | 365     | 319     | 323     | 200     |
| 5.0           | 100-170            | 1.4                      | 40           | 400     | 346     | 357     | 210     |
| 10            | 122-203            | 1.7                      | 90           | 400     | 475     | 400     | 230     |
| 20            | 122-203            | 5.0                      | 215          | 475     | 798     | 575     | 300     |

## ELECTRIC TROLLEY



| Model             |   | DC-A025/05 | DC-A10 | DC-A20 | DC-A30 | DC-50A/100A |
|-------------------|---|------------|--------|--------|--------|-------------|
| Dimension<br>(mm) | A | 396        | 396    | 296    | 442    | 442         |
|                   | B | 266        | 266    | 270    | 330    | 334         |
|                   | C | 264        | 264    | 264    | 340    | 342         |
|                   | D | 145        | 145    | 180    | 180    | 182         |

### 3-phase, 380V, 50Hz / 1-phase, 220V, 50Hz

| Model      | Capacity<br>ton | Motor power<br>W | Trolley speed<br>m/min | I-beam<br>mm | Min.distance<br>between two hooks<br>mm | Min.radius<br>of curve<br>m | Net weight<br>kg |
|------------|-----------------|------------------|------------------------|--------------|-----------------------------------------|-----------------------------|------------------|
| DC-A025/05 | 0.5             | 200              | 20                     | 74-124       | 520                                     | 1.1                         | 33               |
| DC-A10     | 1.0             | 200              | 20                     | 74-124       | 520                                     | 1.1                         | 33               |
| DC-A20     | 2.0             | 300              | 20                     | 74-124       | 520                                     | 1.1                         | 35               |
| DC-A30     | 3.0             | 400              | 18                     | 102-152      | 630                                     | 1.3                         | 63               |
| DC-A50     | 5.0             | 400              | 18                     | 102-152      | 710                                     | 1.3                         | 68               |

# HAND PULLER



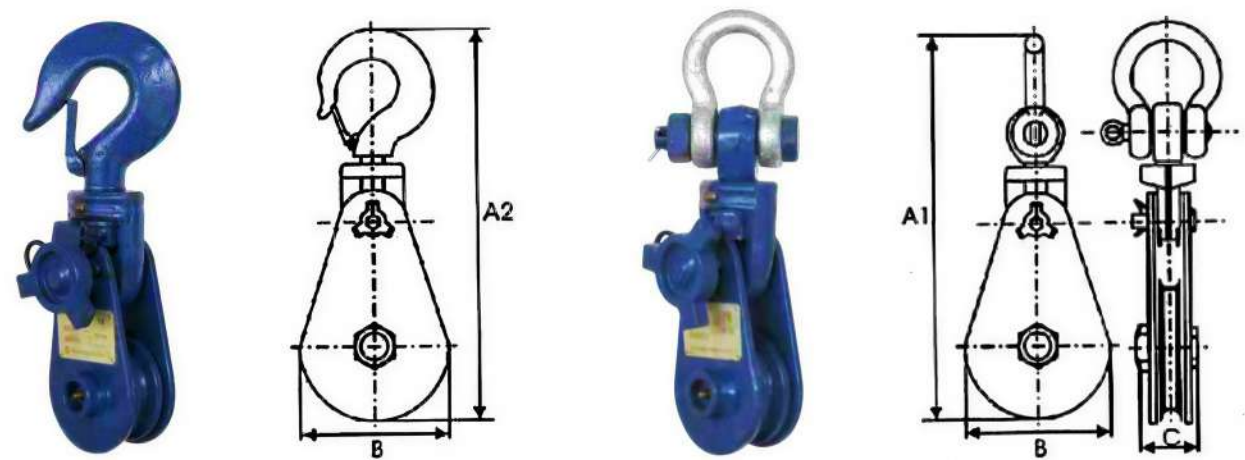
| Description                                                | Model     | Rated Pull (kn) | Cable Size Dia. (mm) | Length (m) | Effective Distance (mm) | Surface    | Qty./ctn (pcs) | Weight (kg) | Dimension (cm) |
|------------------------------------------------------------|-----------|-----------------|----------------------|------------|-------------------------|------------|----------------|-------------|----------------|
| 1T 2-hook&single wheel puller                              | QSS1TA1   | 4.9             | φ4.5                 | 1.8        | 0.5                     | Galvanized | 6              | 14          | 56x21x24       |
| 1T 2-hook&double-wheel puller                              | QSS1TA2   | 4.9             | φ4.5                 | 1.8        | 0.5                     | Galvanized | 6              | 15          | 56x21x24       |
| 1.5T 2-hook&single-wheel puller                            | QSS1.5TA1 | 7.4             | φ4.5                 | 2.2        | 0.7                     | Galvanized | 6              | 16.5        | 58x25x22       |
| 1.5T 2-hook&double-wheel puller                            | QSS1.5TA2 | 7.4             | φ4.5                 | 2.2        | 0.7                     | Galvanized | 6              | 18          | 58x25x22       |
| 2T 2-hook&single-wheel puller                              | QSS2TA1   | 9.8             | φ4.8                 | 3.0        | 1.1                     | Galvanized | 6              | 19.5        | 61x26x22       |
| 2T 2-hook&double-wheel puller                              | QSS2TA2   | 9.8             | φ4.8                 | 3.0        | 1.1                     | Galvanized | 6              | 21          | 61x27x22       |
| 2T top grade of 2-hook&double wheel puller                 | QSS2TC2   | 14.7            | φ5.1                 | 3.0        | 1.1                     | Chromed    | 6              | 21          | 61x26x22       |
| 2T top grade coloured ribbon of 2-hook&double wheel puller | QSS2TE2   | 14.7            | φ5.1                 | 4.5        | 2.1                     | Chromed    | 6              | 21          | 61x26x22       |
| 3-hook & single wheel puller                               | QSS3TA1   | 14.7            | φ5.1                 | 3.3        | 1.2                     | Galvanized | 4              | 19          | 71x21x27       |
| 3T 2-hook & double wheel puller                            | QSS3TA2   | 14.7            | φ5.1                 | 3.3        | 1.2                     | Galvanized | 4              | 20          | 71x21x27       |
| 3T 3-hook & single wheel puller                            | QSS3TB1   | 14.7            | φ5.1                 | 3.3        | 2.4                     | Galvanized | 4              | 20          | 71x21x27       |
| 3T 3-hook & double wheel puller                            | QSS3TB2   | 14.7            | φ5.1                 | 3.3        | 2.4                     | Galvanized | 4              | 21          | 71x21x27       |
| 4T easy model of 2-hook&single wheel puller                | QSS4TA1E  | 19.6            | φ5.5                 | 3.3        | 1.2                     | Galvanized | 4              | 21          | 70x21x29       |
| 4T easy model of 2-hook&double wheel puller                | QSS4TA2E  | 19.6            | φ5.5                 | 3.3        | 1.2                     | Galvanized | 4              | 22          | 70x21x29       |
| 4T easy model of 3-hook&single wheel puller                | QSS4TB1E  | 19.6            | φ5.5                 | 3.3        | 2.4                     | Galvanized | 4              | 22.5        | 70x21x29       |
| 4T easy model of 3-hook&double wheel puller                | QSS4TB2E  | 19.6            | φ5.5                 | 3.3        | 2.4                     | Galvanized | 4              | 23.5        | 70x21x29       |
| 4T top grade of 2-hook&single wheel puller                 | QSS4TA1   | 19.6            | φ6                   | 3.6        | 1.35                    | Chromed    | 2              | 12          | 74x23x14.5     |
| 4T top grade of 2-hook&double wheel puller (Al-alloy)      | QSS4TC2   | 19.6            | φ6                   | 3.6        | 1.35                    | Chromed    | 2              | 13          | 74x23x14.5     |
| 4T top grade of 3-hook&double wheel puller (Al-alloy)      | QSS4TD2   | 19.6            | φ6                   | 3.6        | 2.7                     | Chromed    | 2              | 13.5        | 74x23x14.5     |

# WIRE ROPE WINCH



| Model                              | NHSS0.8       | NHSS1.6    | NHSS3.2    | NHSS5.4     |
|------------------------------------|---------------|------------|------------|-------------|
| Rated Capacity                     | tons 0.8      | 1.6        | 3.2        | 5.4         |
| Pulling Capacity                   | tons 1.2      | 2.4        | 4.8        | 8.1         |
| Rated Forward Travel               | mm ≧ 52       | ≧ 55       | ≧ 28       | ≧ 25        |
| Efficient Length of Forward handle | mm 825        | 1200       | 1200       | 1200        |
| Drive Step                         | 1             | 1          | 2          | 2           |
| Rope Diameter                      | mm 8.3        | 11         | 16         | 20          |
| Standard Length of Rope            | m 20          | 20         | 20         | 20          |
| Net Weight                         | Kg 16         | 24         | 32         | 90          |
| Rated Forward Hand Power           | N ≧ 341       | ≧ 400      | ≧ 438      | ≧ 550       |
| Max.Overall Size                   | mm 426x64x238 | 545x97x284 | 660x98x325 | 930x390x150 |

# HEAVY DUTY SNATCH BOX



| Type           | S.W.L. (t) | Sheave Dia. D(mm) | Dimension (mm) |        |     |     | For Wire Dia (mm) | N.W. (kg) |
|----------------|------------|-------------------|----------------|--------|-----|-----|-------------------|-----------|
| LH(LS)3"x1     | 2          | 75                | A2(LH)         | A2(LS) | B   | C   | 7-9               | 4         |
| LH(LS)4-1/2"x1 | 4          | 115               | 358            | 345    | 120 | 70  | 10-12             | 6.1       |
| LH(LS)6"x1     | 4          | 150               | 412            | 399    | 160 | 70  | 16-18             | 13.8      |
| LH(LS)6"x1     | 8          | 150               | 498            | 475    | 160 | 93  | 20-22             | 14.4      |
| LH(LS)8"x1     | 8          | 200               | 549            | 528    | 210 | 93  | 20-22             | 16        |
| LH(LS)8"x1     | 15         | 200               | 672            | 663    | 230 | 102 | 22-24             | 24        |
| LH(LS)10"x1    | 10         | 250               | 695            | 679    | 260 | 115 | 24-26             | 37.5      |
| LH(LS)10"x1    | 12         | 250               | 701            | 679    | 260 | 115 | 24-26             | 42        |
| LH(LS)12"x1    | 12         | 300               | 797            | 767    | 310 | 133 | 24-26             | 56        |
| LH(LS)12"x1    | 15         | 300               | 797            | 884    | 310 | 133 | 26-28             | 65        |
| LH(LS)14"x1    | 22         | 355               | 960            | 952    | 365 | 140 | 28-32             | 90        |
| LH(LS)16"x1    | 22         | 400               | 1027           | 1019   | 415 | 140 | 28-32             | 108       |
| LH(LS)16"x1    | 30         | 400               | 1085           | 1126   | 415 | 155 | 32-35             | 135       |
| LH(LS)20"x1    | 30         | 500               | 1177           | 1256   | 514 | 162 | 32-35             | 210       |
| LH(LS)24"x1    | 50         | 600               | 1445           | 1525   | 625 | 240 | 46-50             | 408       |

# DRUM LIFTER

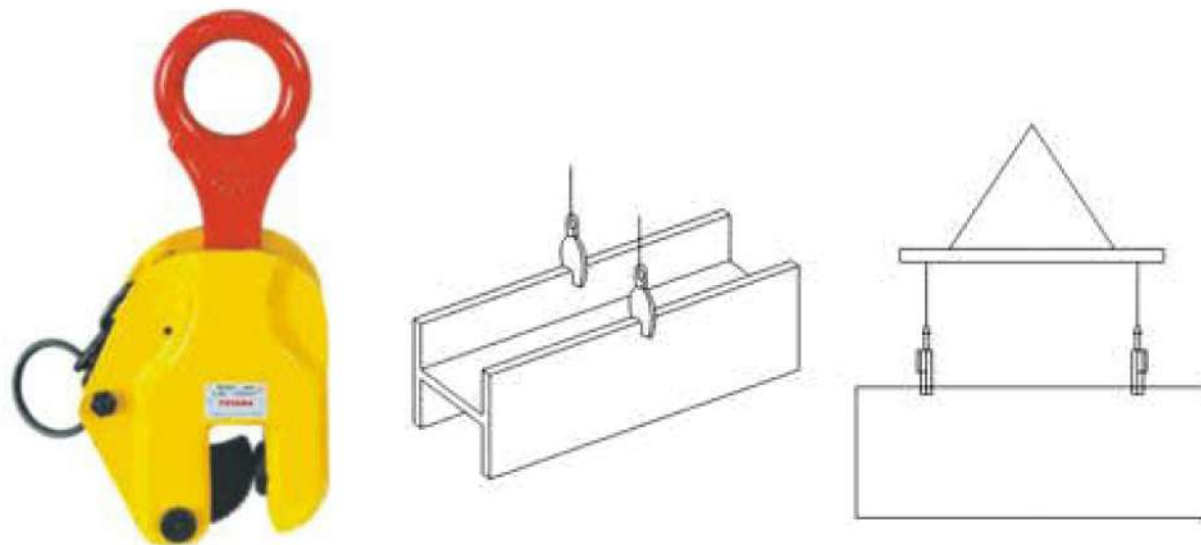


| Up-rightLifting litted | Side angle lifting | Dump                      | Double Leg      |
|------------------------|--------------------|---------------------------|-----------------|
|                        |                    |                           |                 |
| Capacity (kg)          | Chain Size (mm)    | Length of lift chain (mm) | Net weight (kg) |
| 1000                   | 6x18               | 500                       | 3.6             |

# VERTICAL LIFTING CLAMPS

## TECHNICAL FEATURES

- ♦ Japan model.
- ♦ Suitable for vertical lifting of steel plates and steel structures.
- ♦ Capacity: 0.8-20T.
- ♦ Made of high-quality low-carbon alloy steel.
- ♦ It is fitted with a locking device for both open and closed positions, which ensures complete safety.
- ♦ High-frequency quenching of die-forged special alloy steels enhance the strength and durability of the tooth plate.
- ♦ The working load is the capacity of one piece. It may be used singly or pairs of clamp used together.
- ♦ Do not crash the lifted cargos during the lifting and transfer period.



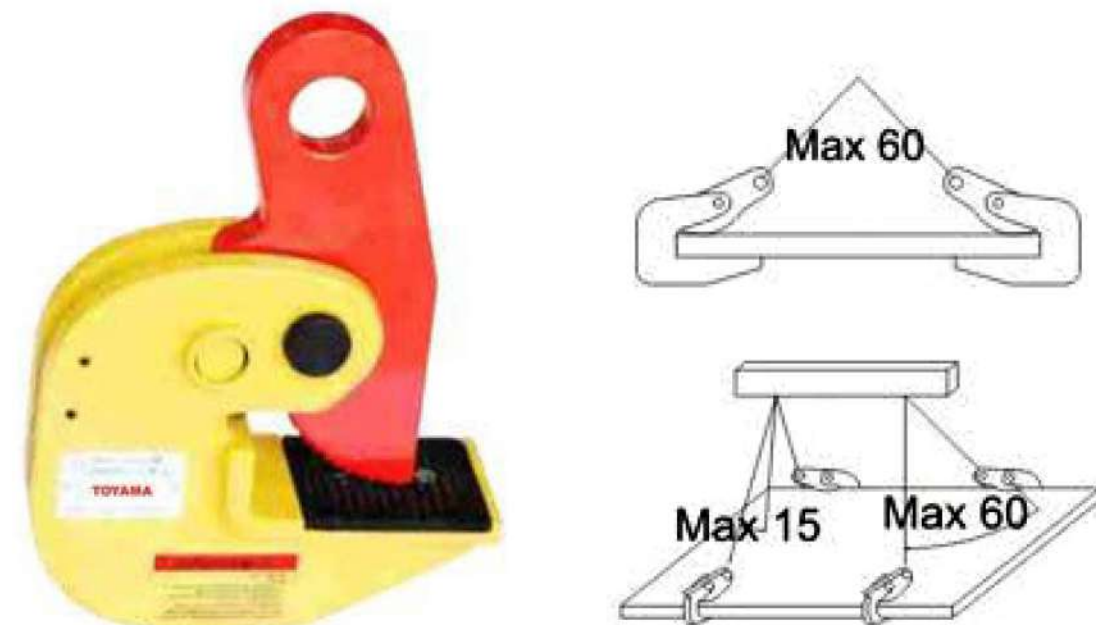
## VERTICAL LIFTING CLAMPS SPECIFICATIONS:

| Model   | Working Load (kg) | Test Load (kg) | Opening Size (mm) | Net Weight (kg) |
|---------|-------------------|----------------|-------------------|-----------------|
| JCD-0.8 | 800               | 1600           | 0-16              | 2.8             |
| JCD-1.0 | 1000              | 2000           | 0-22              | 4.2             |
| JCD-2.0 | 2000              | 4000           | 0-25              | 5.5             |
| JCD-3.2 | 3200              | 6400           | 0-35              | 9.5             |
| JCD-5.0 | 5000              | 10000          | 0-50              | 16              |
| JCD-8.0 | 8000              | 16000          | 0-60              | 23              |
| JCD-10  | 10000             | 15000          | 0-80              | 33              |
| JCD-12  | 12000             | 18000          | 20-90             | 37              |
| JCD-16  | 16000             | 24000          | 40-100            | 46              |
| JCD-20  | 20000             | 30000          | 60-120            | 76              |

# HORIZONTAL LIFTING CLAMPS

## TECHNICAL FEATURES

- ♦ Europe model.
- ♦ Suitable for lifting and horizontal transfer of steel plates and steel structures.
- ♦ Capacity: 0.8-16T.
- ♦ Made of high-quality low-carbon alloy steel.
- ♦ The working load limit is the maximum load when the clamp are used in pairs with a lift of 60°. In lifting operation should be used in pairs or multiples.



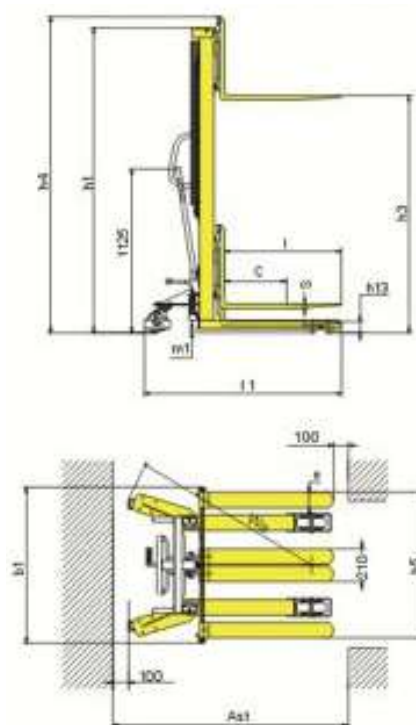
## HORIZONTAL LIFTING CLAMPS SPECIFICATIONS:

| Model    | Capacity/pair (kg) | Test Load (kg) | Opening Size (mm) | Net Weight (kg) |
|----------|--------------------|----------------|-------------------|-----------------|
| PPD-0.8  | 800                | 1600           | 0-25              | 2.5             |
| PPD-1.0  | 1000               | 2000           | 0-30              | 3.5             |
| PPD-1.6  | 1600               | 3200           | 0-30              | 4.0             |
| PPD-2.0  | 2000               | 4000           | 0-40              | 5.0             |
| PPD-3.2  | 3200               | 6400           | 0-45              | 6.0             |
| PPD-4.0  | 4000               | 8000           | 0-50              | 6.5             |
| PPD-5.0  | 5000               | 10000          | 0-55              | 7.5             |
| PPD-6.0  | 6000               | 12000          | 0-65              | 10.5            |
| PPD-6.0A | 6000               | 12000          | 0-130             | 22              |
| PPD-8.0  | 8000               | 12000          | 0-100             | 25              |
| PPD-10   | 10000              | 15000          | 0-125             | 33              |
| PPD-16   | 16000              | 24000          | 0-150             | 52              |

## MANUAL STACKER

### TECHNICAL FEATURES

- ♦ Rubust steel construction.
- ♦ Sturdy and compact enough to fit enough standard doors and to operate in congested areas.
- ♦ Regardless of loading weight, lifting speed always smoothly as same, no impact, safe to use.
- ♦ The stacker can be lifted by handle or foot pedal.
- ♦ Set the active safety valve to prevent overloading of use.
- ♦ Conform to CN 1757-2, CE/GS/TUV, 1S09001:2000



### MANUAL STACKER SPECIFICATIONS:

| ITEM                 | UNIT | MSC500  | MSC1000        | MSC1500 | MSC2000 |
|----------------------|------|---------|----------------|---------|---------|
| CAPACITY             | KG   | 500     | 1000           | 1500    | 2000    |
| MAX.LIFTING HEIGHT   | MM   | 1600    | 1600/2000/2500 | 1600    | 1600    |
| HEIGHT, FORK LOWERED | MM   | 80      | 90             |         |         |
| FORK LENGTH          | MM   | 800     | 900/1070       |         |         |
| FORK WIDTH           | MM   | 320-695 |                |         |         |
| LOAD CENTER          | MM   | 400     |                |         |         |
| TURNING RADIUS       | MM   | 1250    | 1400           |         |         |
| OVERALL LENGTH       | MM   | 1234    | 1325           |         |         |
| OVERALL WIDTH        | MM   | 820     | 1000/790       | 1000    |         |
| OVERALL HEIGHT       | MM   | 1980    | 2080/1580/1830 | 2080    | 2080    |
| WHEEL TYPE           |      | NYLON   |                |         |         |

## SEMI-ELECTRIC STACKER

### TECHNICAL FEATURES

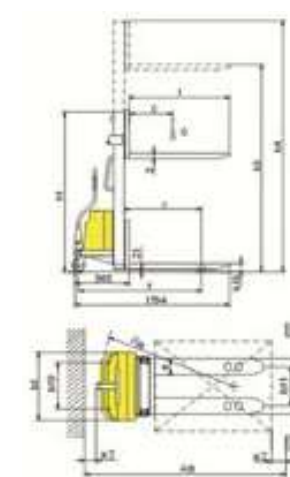
- ♦ Handle-castor chain assist steering system make turning more easier.
- ♦ Over-discharge protection device greatly prolongs the battery use time.
- ♦ Equipped with explosion-proof valve, ensure no sharp drop of platform and prevent operator from harm.
- ♦ Easy operating foot brake.
- ♦ Conform to CN 1757-2, CE/GS/TUV, ISO9001:2000



Chain Assist Steering System



Conforms to EN ISO3691-5:2009  
Based on Directive 2006/42/EC



### SMEI-ELECTRIC STACKER SPECIFICATIONS:

| ITEM                        | UNIT | ESB10               | ESB15          |
|-----------------------------|------|---------------------|----------------|
| MOVEING TYPE                |      | MANUAL              |                |
| LIFTING TYPE                |      | ELECTRIC MOTOR      |                |
| LOAD CAPACITY               |      | 1000                | 1500           |
| MAX. LIFTING HEIGHT         |      | 1600/2000/2500/3000 | 1600/2000/2500 |
| FORKS WIDTH                 |      | 320-695             |                |
| FORKS LENGTH                |      | 1000                |                |
| MIN. FORK HEIGHT, LOWERED   |      | 90                  | 90             |
| LOAD CENTER DISTANCE        |      | 450                 | 450            |
| WHEELBASE                   |      | 1185                | 1260           |
| OVERALL LENGTH              |      | 1660                | 1660           |
| OVERALL WIDTH               |      | 850                 | 850            |
| OVERALL HEIGHT              |      | 2040/1580/1835/2090 | 2080/1630/1875 |
| TURNING RADIUS              |      | 1350                | 1450           |
| LIFTING SPEED, LOAD/UNLOAD  |      | 10/15               | 10/15          |
| LOWERING SPEED, LOAD/UNLOAD |      | 15/12               | 15/12          |
| SERVICE BRAKE               |      | Mechanical          | Mechanical     |
| BATTERY VOLTAGE             |      | 12/120              | 12/120         |
| BATTERY WEIGHT              |      | 25                  | 25/30          |
| WHEEL TYPE                  |      | Nylon               | Nylon          |
| WHEEL SIZE, FRONT           |      | Φ 80x60             | Φ 80x60        |
| WHEEL SIZE, REAR            |      | Φ 180x50            | Φ 180x50       |
| SERVICE WEIGHT              |      | 400/430/450/470     | 430/480/510    |

## HAND PALLET TRUCK - CBG-I

### TECHNICAL FEATURES



- ♦ Economic design, but big load capacity 3000 kgs.
- ♦ Complete pump design with reliable leak-proof pump eliminating maintenance and extending the service time.
- ♦ 3 position hand control - raise, lower, neutral.
- ♦ Fork lowering speed is controllable. Operated by hand control and foot pedal.
- ♦ Entry/exit roller, more freely travel.
- ♦ Conform to CN 1757-2, CE/GS/TUV, ISO9001:2000
- ♦ Wheel type option: nylon, pu, rubber.

### HAND PALLET TRUCK SPECIFICATIONS:

| ITEM                   | UNIT | CBG-I 20            | CBG-I 25 | CBG-I 30 |
|------------------------|------|---------------------|----------|----------|
| CAPACITY               | KG   | 2000                | 2500     | 3000     |
| OVERALL FORK WIDTH     | MM   | 520/550/685         |          |          |
| OVERALL FORK LENGTH    | MM   | 915/1100/1150/1220  |          |          |
| LOWERED FORK HEIGHT    | MM   | 85                  |          |          |
| MAX.FORK HEIGHT        | MM   | 200                 |          |          |
| STEERING WHEEL SIZE    | MM   | Φ180X50             |          |          |
| FORK WHEEL SIZE SINGLE | MM   | Φ80X84              |          |          |
| FORK WHEEL SIZE TANDEM | MM   | Φ80X60              |          |          |
| TURNING RADIUS         | MM   | 1210/1260/1330      |          |          |
| SERVICE WEIGHT         | KG   | 65-80               |          |          |
| WHEEL TYPE             |      | NYLON / PU / RUBBER |          |          |

## HAND PALLET TRUCK - HPW

### TECHNICAL FEATURES



- ♦ High reliability and long service life of 5 years.
- ♦ Double lifting speed when loads under 600 kg, which turns back to regular speed when above it.
- ♦ The lifting system is equipped with overloading protection valve to ensure the safe operation.
- ♦ The utilized structural design guarantees the convenience of assembling and disassembling.
- ♦ High - weight fork frame, made from high rigidity steel plate.
- ♦ Compact appearance, innovative separated rock arm, ensure the whole truck evenly pressed.
- ♦ There is a finger hole in the connection of handle and pump, which is easy to assembly.
- ♦ Conform to EN 1757-2.

### HAND PALLET TRUCK SPECIFICATIONS:

| ITEM                           | UNIT | HPW       |
|--------------------------------|------|-----------|
| CAPACITY                       | KG   | 5000      |
| OVERALL FORK WIDTH             | MM   | 550/685   |
| OVERALL FORK LENGTH            | MM   | 1150/1220 |
| LOWERED FORK HEIGHT            | MM   | 77        |
| MAX.FORK HEIGHT                | MM   | 195       |
| STEERING WHEEL SIZE            | MM   | Φ 180     |
| LOAD ROLLER SIZE TANDEM WHEELS | MM   | Φ 75X80   |
| TURNING RADIUS                 | MM   | 1370      |
| SERVICE WEIGHT                 | KG   | 103       |
| WHEEL TYPE                     |      | NYLON     |



## TABLE LIFT TRUCK

### TECHNICAL FEATURES

- ♦ 1 year warranty.
- ♦ Easy action foot operated hydraulic lift for raising table top to desired level.
- ♦ Hand operated table descent control.
- ♦ Regenerative braking function to reduce the operation cost.
- ♦ Valuable material handling equipment for use as a feeding table on assembly line.



Model: GTF



Model: GTFS

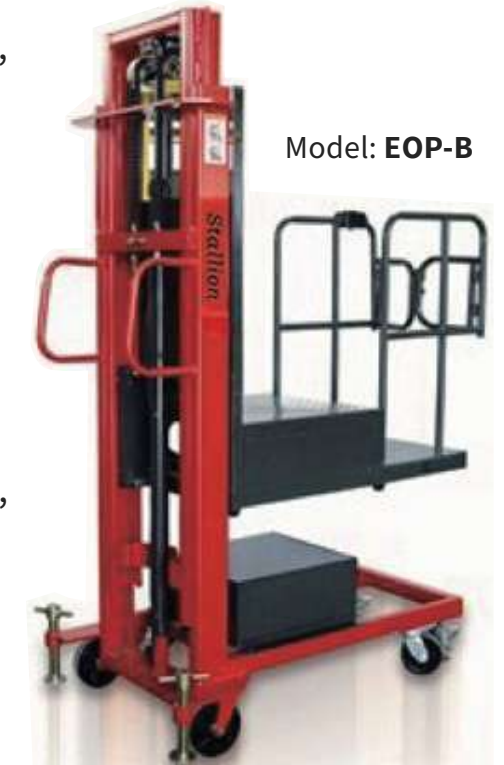
### TABLE LIFT TRUCK SPECIFICATIONS:

| ITEM                       | UNIT | GTF         | GTFB         | GTFS         |
|----------------------------|------|-------------|--------------|--------------|
| CAPACITY                   | KG   | 300 / 500   | 750 / 1000   | 350 / 680    |
| MAX. LIFTING HEIGHT        | MM   | 900         | 1000         | 1300         |
| MIN. TABLE HEIGHT          | MM   | 290         | 390          | 360          |
| TABLE SIZE                 | MM   | 815X510X50  | 1000X510X55  | 910X510X50   |
| OVERALL LENGTH             | MM   | 885         | 1060         | 980          |
| WHEEL TYPE                 |      | PU          |              |              |
| WHEEL SIZE                 | MM   | Φ 125X50    | Φ 150X50     | Φ 125X50     |
| PEDAL CYCLES TO MAX HEIGHT |      | ≤40         | ≤55          | ≤60          |
| SERVICE WEIGHT             | KG   | 75 / 85     | 115          | 105 / 185    |
| QTY./20'CONTAINER          | PCS  | 120         | 115          | 110          |
| CARTON SIZE                | MM   | 960X530X420 | 1190X630X460 | 1010X530X390 |

## SEMI-ELECTRIC ORDER PICKER

### TECHNICAL FEATURES

- ♦ Rated load capacity: 300kg; Max lift height: 3500mm, usually used in warehouse, library, supermarket rack etc;
- ♦ The secure brake and bolt protective device, to ensure the safe operation
- ♦ Our range of Semi-automatic High Level Order Picker is fabricated by a team of dexterous professionals using the finest grade factor inputs and latest technology in compliance with the international standards.
- ♦ This product is broadly accepted by our clients due to their superior finish durability, high load bearing capacity and longer service life without any hassles. Offered in various technical specifications, this range of order picker is available at the most reasonable prices.



Model: EOP-B

### ALUMINIUM SLEEVE SPECIFICATIONS:



| ITEM                      | UNIT | EOP-B24  | EOP-B30  |
|---------------------------|------|----------|----------|
| DRIVE TYPE                |      | HAND     | HAND     |
| OPERATION TYPE            |      | STANDING | STANDING |
| LOAD CAPACITY             | kg   | 300      | 300      |
| MAX LIFTING HEIGHT        | mm   | 2400     | 3000     |
| HEIGHT-MAST LOWERED       | mm   | 1690     | 1990     |
| MIN.HEIGHT-PLATFORM       | mm   | 540      | 540      |
| MIN.HEIGHT-STAND PLATFORM | mm   | 345      |          |
| OVERALL LENGTH            | mm   | 1520     |          |
| OVERALL WIDTH             | mm   | 890      |          |
| WHEEL BASE                | mm   | 1025     |          |
| BODY WIDTH                | mm   | 600      |          |
| FRONT WHEEL               | mm   | Φ150X50  |          |
| REAR WHEEL                | mm   | Φ180X50  |          |
| TURNING RADIUS            | mm   | 1380     |          |
| LOAD PLATFORM SIZE        | mm   | 600X600  |          |
| STAND PLATFORM SIZE       | mm   | 450X600  |          |
| LIFTING SPEED             | mm/s | 85       |          |
| LIFT MOTOR                | kw   | 1.5      |          |
| BATTERY                   | V/ah | 12/120   |          |

TOYAMA

## HHB ELECTRIC CHAIN HOIST

## TECHNICAL FEATURES

- ♦ Japan Tech.
- ♦ Dual braking system ensure for more safe and reliable operation.
- ♦ Compact design with light weight
- ♦ Dual-gear driven system enable smoothly driven with low noise.
- ♦ High-strength alloy steel components with special heat treatment, avoiding sudden break.



Limit switch ensure safety and reliable operation



Electro magnetic brake system



Strong water-proof control handle



## OPTIONAL FEATURES WITH EXTRA COST

- ♦ Dual Speed
- ♦ Schneider electric parts
- ♦ Over protection
- ♦ FEC Chain & Thermal protection
- ♦ Different power supply and frequency

3-phase, 380V, 50Hz (single speed/dual speed)

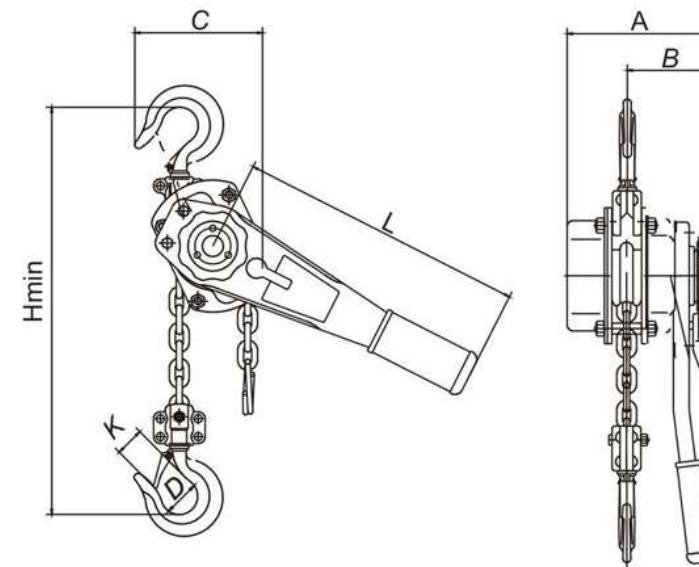
| Model<br>型号 | Capacity<br>额定载荷<br>t | Standard lift<br>标准起升高度<br>m | Test load<br>试验载荷<br>kN | Motor Power(kw)<br>电机功率<br>Single/Dual<br>单速/双速 | No. of Chain<br>链条行数 | Dia of Chain<br>链条直径<br>mm | Lifting Speed<br>(m/min)<br>起升速度<br>Single/Dual<br>单速/双速 | Net weight<br>净重<br>kg | Extra weight per<br>meter of extra lift<br>起升高度增加1米<br>增加的重量<br>kg |
|-------------|-----------------------|------------------------------|-------------------------|-------------------------------------------------|----------------------|----------------------------|----------------------------------------------------------|------------------------|--------------------------------------------------------------------|
| HHB-0.5AF   | 0.5                   | 3                            | 6.25                    | 0.75,0.8/0.27                                   | 1                    | 6.3                        | 6.8,6.9/2.3                                              | 47                     | 0.81                                                               |
| HHB-1.0AF   | 1.0                   | 3                            | 12.5                    | 1.5,1.8/0.6                                     | 1                    | 7.1                        | 6.6,6.9/2.3                                              | 61                     | 1.1                                                                |
| HHB-1.0BF   | 1.0                   | 3                            | 12.5                    | 0.75,0.8/0.27                                   | 2                    | 6.3                        | 3.4,3.5/1.2                                              | 52                     | 1.62                                                               |
| HHB-2.0AF   | 2.0                   | 3                            | 25                      | 3.0,3.0/1.0                                     | 1                    | 10                         | 6.6,6.8/2.3                                              | 115                    | 2.3                                                                |
| HHB-2.0BF   | 2.0                   | 3                            | 25                      | 1.5,1.8/0.6                                     | 2                    | 7.1                        | 3.3,3.3/1.1                                              | 73                     | 2.2                                                                |
| HHB-3.0AF   | 3.0                   | 3                            | 37.5                    | 3.0,3.0/1.0                                     | 1                    | 11.2                       | 5.4,5.4/1.8                                              | 122                    | 2.8                                                                |
| HHB-3.0BF   | 3.0                   | 3                            | 37.5                    | 3.0,3.0/1.0                                     | 2                    | 10                         | 4.4,4.5/1.5                                              | 131                    | 4.7                                                                |
| HHB-5.0F    | 5.0                   | 3                            | 62.5                    | 3.0,3.0/1.0                                     | 2                    | 11.2                       | 2.8,2.7/0.9                                              | 151                    | 5.6                                                                |
| HHB-7.5F    | 7.5                   | 3                            | 94                      | 3.0,3.0/1.0                                     | 3                    | 11.2                       | 1.8,1.8/0.6                                              | 266                    | 8.4                                                                |
| HHB-10F     | 10                    | 6                            | 125                     | 3.0,3.0x2/1.0x2                                 | 4                    | 11.2                       | 2.7,2.7/0.9                                              | 335                    | 11.2                                                               |
| HHB-15F     | 15                    | 6                            | 187.5                   | 3.0X2,3.0x2/1.0x2                               | 6                    | 11.2                       | 1.8,1.8/0.6                                              | 451                    | 17                                                                 |
| HHB-20F     | 20                    | 6                            | 250                     | 3.0X2,3.0x2/1.0x2                               | 8                    | 11.2                       | 1.4,1.5/0.6                                              | 546                    | 22                                                                 |
| HHB-25F     | 25                    | 6                            | 312.5                   | 3.0X2,3.0x2/1.0x2                               | 10                   | 11.2                       | 1.1,1.2/0.4                                              | 624                    | 28                                                                 |
| HHB-30F     | 30                    | 6                            | 375                     | 3.0X2,3.0x2/1.0x2                               | 12                   | 11.2                       | 0.9,1.0/0.3                                              | 1143                   | 31                                                                 |
| HHB-35F     | 35                    | 6                            | 437.5                   | 3.0X2,3.0x2/1.0x2                               | 16                   | 11.2                       | 0.7,0.7/0.25                                             | 1385                   | 44.8                                                               |

TOYAMA

## LEVER BLOCK

## TECHNICAL FEATURES

- ♦ Automatic Double Pawl Breaking System.
- ♦ Asbestos Free Friction Disc.
- ♦ Industrial Powder Coating meet RoHS requirement.
- ♦ One step operation for free wheel.
- ♦ 1500 Cycles lift test, Meet JBT7334, EN13157, ANSI B30. 16, AS 1418 Standards.



## LEVER BLOCK SPECIFICATIONS:

| Model                                |      | HSB616-0.75 | HSB616-1.5 | HSB616-3     | HSB616-6 | HSB616-9 |
|--------------------------------------|------|-------------|------------|--------------|----------|----------|
| Capacity                             | tons | 0.75        | 1.5        | 3.0          | 6.0      | 9.0      |
| Standard lift                        | m    | 1.5         | 1.5        | 1.5          | 1.5      | 1.5      |
| Running test load                    | KN   | 11.2        | 22.5       | 45           | 75       | 112.5    |
| Effort required to lift rated load   | N    | 140         | 220        | 320          | 340      | 360      |
| Strands of load chain                |      | 1           | 1          | 1            | 2        | 3        |
| Diameter of load chain               | mm   | 6           | 8          | 10           | 10       | 10       |
| Dimensions<br>(mm)                   | A    | 145         | 175        | 195          | 195      | 195      |
|                                      | B    | 86          | 100        | 115          | 115      | 115      |
|                                      | C    | 134         | 150        | 190          | 242      | 307      |
|                                      | D    | 38          | 48         | 50           | 65       | 81       |
|                                      | H    | 340         | 380        | 490          | 620      | 700      |
|                                      | L    | 285         | 410        | 410          | 410      | 410      |
|                                      | K    | 27          | 36         | 38           | 48       | 54       |
| Net weight                           | kg   | 9.5         | 11.5       | 18.5         | 27.5     | 46       |
| Packing measurement                  | cm   | 37.5X16X18  | 52X17X22   | 55X18.5X22.5 | 57X21X23 | 60X42X28 |
| Extra weight per metre of Extra lift | kg   | 0.8         | 1.4        | 2.2          | 4.4      | 6.6      |

# CARGO LASHINGS

## TECHNICAL FEATURES

- Produced from high tensile polyester yarns.
- Low elongation, wear-resistant, long-life strap material(100% polyester).
- Various end fittings are available to suit specific lashing needs.
- In accordance with DIN 60060 and EN 12195-2.



## CARGO LASHINGS SPECIFICATIONS:

| Code            | Width | LGF    | LGL     | LG    | STF<br>SHF=50 daN | Lashing Capacity |           |
|-----------------|-------|--------|---------|-------|-------------------|------------------|-----------|
|                 |       |        |         |       |                   |                  |           |
| CLB2/RE/1/0110  | 25mm  | 0.5mtr | 9.5mtr  | 10mtr | 200 daN           | 1000 daN         | 2000 daN  |
| CLB5/RE/2/0210  | 50mm  | 0.5mtr | 9.5mtr  | 10mtr | 320 daN           | 2500 daN         | 5000 daN  |
| CLB5/RE/2/0212  | 50mm  | 0.5mtr | 11.5mtr | 12mtr | 320 daN           | 2500 daN         | 5000 daN  |
| CLB5/RE/2/0215  | 50mm  | 0.5mtr | 14.5mtr | 15mtr | 320 daN           | 2500 daN         | 5000 daN  |
| CLB10/RE/3/0310 | 75mm  | 0.5mtr | 9.5mtr  | 10mtr | 720 daN           | 5000 daN         | 10000 daN |
| CLB10/RE/3/0312 | 75mm  | 0.5mtr | 11.5mtr | 12mtr | 720 daN           | 5000 daN         | 10000 daN |
| CLB10/RE/3/0315 | 75mm  | 0.5mtr | 14.5mtr | 15mtr | 720 daN           | 5000 daN         | 10000 daN |
| CLB12/RE/4/0410 | 100mm | 0.5mtr | 9.5mtr  | 10mtr | 820 daN           | 6000 daN         | 12000 daN |
| CLB12/RE/4/0412 | 100mm | 0.5mtr | 11.5mtr | 12mtr | 820 daN           | 6000 daN         | 12000 daN |
| CLB12/RE/4/0415 | 100mm | 0.5mtr | 14.5mtr | 15mtr | 820 daN           | 6000 daN         | 12000 daN |

# TORO 12 STRAND BRAIDED ROPE

## TECHNICAL FEATURES

- High Strength
- Lowest Stretch
- Low Creep
- Soft hand
- Torque-free
- Easy Splicing
- Floats

## 3 STRAND NYLON ROPE SPECIFICATIONS:

| Nominal Diameter |    | Size (circ in.) | Approximate Weight |         | Minimum Tensile Strength Spliced Rope |             | Minimum Tensile Strength ISO Unspliced Rope |             |
|------------------|----|-----------------|--------------------|---------|---------------------------------------|-------------|---------------------------------------------|-------------|
| inch             | mm |                 | lbs/100ft          | kg/100m | lbs                                   | MT (tonnes) | lbs                                         | MT (tonnes) |
| 1/8              | 3  | 3/8             | 0.69               | 1.03    | 2,800                                 | 1.27        | 3,110                                       | 1.41        |
| 3/16             | 5  | 9/16            | 1.20               | 1.79    | 5,500                                 | 2.49        | 6,110                                       | 2.77        |
| 1/4              | 6  | 3/4             | 1.7                | 2.6     | 8,000                                 | 3.63        | 8,880                                       | 4.0         |
| 5/16             | 8  | 15/16           | 2.6                | 3.8     | 11,700                                | 5.31        | 12,990                                      | 5.9         |
| 3/8              | 9  | 1-1/8           | 3.6                | 5.3     | 17,500                                | 7.94        | 19,440                                      | 8.8         |
| 7/16             | 11 | 1-1/4           | 4.8                | 7.1     | 22,000                                | 10.0        | 24,400                                      | 11.1        |
| 1/2              | 12 | 1-1/2           | 6.1                | 9.1     | 30,500                                | 13.8        | 33,800                                      | 15.4        |
| 9/16             | 14 | 1-3/4           | 7.6                | 11.3    | 36,500                                | 16.6        | 40,500                                      | 18.4        |
| 5/8              | 16 | 2               | 9.4                | 14.1    | 47,800                                | 21.7        | 53,100                                      | 24.1        |
| 3/4              | 18 | 2-1/4           | 13.5               | 20.1    | 61,800                                | 28.0        | 68,600                                      | 31.1        |
| 13/16            | 20 | 2-1/2           | 15.8               | 23.5    | 74,000                                | 33.6        | 82,200                                      | 37.3        |
| 7/8              | 22 | 2-3/4           | 18.5               | 27.5    | 84,300                                | 38.2        | 93,600                                      | 42.5        |
| 1                | 24 | 3               | 23.7               | 35.3    | 105,000                               | 47.6        | 116,600                                     | 52.9        |
| 1-1/16           | 26 | 3-1/4           | 26.9               | 40.0    | 121,600                               | 55.1        | 135,000                                     | 61.3        |
| 1-1/8            | 28 | 3-1/2           | 30.3               | 45.1    | 137,000                               | 62.1        | 152,200                                     | 69.0        |
| 1-1/4            | 30 | 3-3/4           | 37.2               | 55.4    | 157,000                               | 71.2        | 174,400                                     | 79.1        |
| 1-5/16           | 32 | 4               | 41.1               | 61.2    | 176,400                               | 80.0        | 195,900                                     | 88.9        |
| 1-1/2            | 36 | 4-1/2           | 53.8               | 80.1    | 215,000                               | 97.5        | 238,800                                     | 108.3       |

# 3 STRAND POLYPROPYLENE ROPE

## TECHNICAL FEATURES

- ◆ Specific Gravity: 0.91
- ◆ Melting Point: 160° C
- ◆ Elongation at break: 30%
- ◆ Construction: 3,4 - strand

## 3 STRAND POLYPROPYLENE ROPE SPECIFICATIONS:

| ROPE SIZE<br>IN MM | CIR INCH | WEIGHT<br>KGS/ MTR | POLYPROPYLENE ROPE     |                        |                        |                             |                           |
|--------------------|----------|--------------------|------------------------|------------------------|------------------------|-----------------------------|---------------------------|
|                    |          |                    | WEIGHT<br>KGS/ 100 MTR | WEIGHT<br>KGS/ 200 MTR | WEIGHT<br>KGS/ 220 MTR | BREAKING<br>STRENGTH (TONS) | BREAKING<br>STRENGTH (kN) |
| 4                  | 5/32     | 0.01               | 0.74                   | 1.48                   | 1.63                   | 0.20                        | 1.99                      |
| 6                  | 1/4      | 0.02               | 1.70                   | 3.40                   | 3.74                   | 0.60                        | 6                         |
| 8                  | 1        | 0.03               | 3.00                   | 6.00                   | 6.60                   | 1.00                        | 9.4                       |
| 10                 | 1 1/4    | 0.05               | 4.55                   | 9.10                   | 10.01                  | 1.40                        | 14                        |
| 12                 | 1 1/2    | 0.07               | 6.59                   | 13.18                  | 14.50                  | 2.00                        | 19.9                      |
| 14                 | 1 3/4    | 0.09               | 9.00                   | 18.00                  | 19.80                  | 2.80                        | 27.4                      |
| 16                 | 2        | 0.12               | 11.59                  | 23.18                  | 25.50                  | 3.50                        | 34.3                      |
| 18                 | 2 1/4    | 0.15               | 14.80                  | 29.60                  | 32.56                  | 4.50                        | 43.6                      |
| 20                 | 2 1/2    | 0.18               | 18.00                  | 36.00                  | 39.60                  | 5.40                        | 52.6                      |
| 22                 | 2 3/4    | 0.22               | 22.00                  | 44.00                  | 48.40                  | 6.50                        | 63.7                      |
| 24                 | 3        | 0.26               | 26.00                  | 52.00                  | 57.20                  | 7.60                        | 74.5                      |
| 26                 | 3 1/4    | 0.31               | 31.00                  | 62.00                  | 68.20                  | 8.90                        | 86.8                      |
| 28                 | 3 1/2    | 0.36               | 35.50                  | 71.00                  | 78.10                  | 10.10                       | 99                        |
| 30                 | 3 3/4    | 0.41               | 41.00                  | 82.00                  | 90.20                  | 11.50                       | 112.7                     |
| 32                 | 4        | 0.46               | 46.00                  | 92.00                  | 101.20                 | 12.80                       | 125.5                     |
| 36                 | 4 1/2    | 0.59               | 58.50                  | 117.00                 | 128.70                 | 16.10                       | 157.8                     |
| 40                 | 5        | 0.72               | 71.82                  | 143.64                 | 158.00                 | 19.40                       | 190.2                     |
| 44                 | 5 1/2    | 0.90               | 90.00                  | 180.00                 | 198.00                 | 23.40                       | 229.4                     |
| 48                 | 6        | 1.04               | 104.00                 | 208.00                 | 228.80                 | 27.20                       | 266.7                     |
| 52                 | 6 1/2    | 1.22               | 122.00                 | 244.00                 | 268.40                 | 31.50                       | 308.8                     |
| 56                 | 7        | 1.42               | 142.00                 | 284.00                 | 312.40                 | 36.00                       | 352.9                     |
| 60                 | 7 1/2    | 1.63               | 163.20                 | 326.40                 | 359.04                 | 41.20                       | 403.9                     |
| 64                 | 8        | 1.85               | 185.00                 | 370.00                 | 407.00                 | 46.60                       | 456.9                     |
| 68                 | 8 1/2    | 2.10               | 210.00                 | 420.00                 | 462.00                 | 52.60                       | 515.7                     |
| 72                 | 9        | 2.34               | 234.00                 | 468.00                 | 514.80                 | 58.50                       | 573.5                     |
| 80                 | 10       | 2.90               | 290.00                 | 580.00                 | 638.00                 | 72.00                       | 705.9                     |

# 3 STRAND NYLON ROPE

## TECHNICAL FEATURES

- ◆ Specific Gravity: 1.14
- ◆ Melting Point: 210° C
- ◆ Elongation at break: 50%
- ◆ Construction: 3-strand
- ◆ Colour: White

## 3 STRAND NYLON ROPE SPECIFICATIONS:

| ROPE SIZE IN<br>MM | CIR INCH | WEIGHT<br>KGS/ MTR | NYLON ROPE             |                        |                        |                             |                           |
|--------------------|----------|--------------------|------------------------|------------------------|------------------------|-----------------------------|---------------------------|
|                    |          |                    | WEIGHT<br>KGS/ 100 MTR | WEIGHT<br>KGS/ 200 MTR | WEIGHT<br>KGS/ 220 MTR | BREAKING<br>STRENGTH (TONS) | BREAKING<br>STRENGTH (kN) |
| 4                  | 5/32     | 0.01               | 1.05                   | 2.10                   | 2.31                   | 0.35                        | 3.48                      |
| 6                  | 1/4      | 0.02               | 2.25                   | 4.50                   | 4.95                   | 0.74                        | 7.37                      |
| 8                  | 1        | 0.04               | 4.00                   | 8.00                   | 8.80                   | 1.40                        | 13.2                      |
| 10                 | 1 1/4    | 0.06               | 6.30                   | 12.60                  | 13.86                  | 2.10                        | 20.3                      |
| 12                 | 1 1/2    | 0.09               | 9.00                   | 18.00                  | 19.80                  | 3.00                        | 29.4                      |
| 14                 | 1 3/4    | 0.12               | 12.30                  | 24.60                  | 27.06                  | 4.10                        | 40.2                      |
| 16                 | 2        | 0.16               | 16.00                  | 32.00                  | 35.20                  | 5.30                        | 51.9                      |
| 18                 | 2 1/4    | 0.20               | 20.30                  | 40.60                  | 44.66                  | 6.70                        | 65.6                      |
| 20                 | 2 1/2    | 0.25               | 25.00                  | 50.00                  | 55.00                  | 8.30                        | 81.3                      |
| 22                 | 2 3/4    | 0.30               | 30.30                  | 60.60                  | 66.66                  | 10.00                       | 98                        |
| 24                 | 3        | 0.36               | 36.00                  | 72.00                  | 79.20                  | 12.00                       | 117.6                     |
| 26                 | 3 1/4    | 0.42               | 42.30                  | 84.60                  | 93.06                  | 13.80                       | 135.2                     |
| 28                 | 3 1/2    | 0.49               | 49.00                  | 98.00                  | 107.80                 | 15.80                       | 154.9                     |
| 30                 | 3 3/4    | 0.56               | 56.30                  | 112.60                 | 123.86                 | 17.80                       | 174.5                     |
| 32                 | 4        | 0.64               | 64.00                  | 128.00                 | 140.80                 | 20.00                       | 196                       |
| 34                 | 4 1/4    | 0.72               | 72.30                  | 144.60                 | 159.06                 | 22.30                       | 218.6                     |
| 36                 | 4.5      | 0.81               | 81.00                  | 162.00                 | 178.20                 | 24.80                       | 243.1                     |
| 38                 | 4 3/4    | 0.90               | 90.30                  | 180.60                 | 198.66                 | 27.30                       | 267.6                     |
| 40                 | 5        | 1.00               | 100.00                 | 200.00                 | 220.00                 | 30.00                       | 294.1                     |
| 44                 | 5 1/2    | 1.21               | 121.00                 | 242.00                 | 266.20                 | 35.80                       | 350.9                     |
| 48                 | 6        | 1.44               | 144.00                 | 288.00                 | 316.80                 | 42.00                       | 411.7                     |
| 52                 | 6 1/2    | 1.69               | 169.00                 | 338.00                 | 371.80                 | 48.80                       | 478.4                     |
| 56                 | 7        | 1.96               | 196.00                 | 392.00                 | 431.20                 | 56.00                       | 549                       |
| 60                 | 7 1/2    | 2.25               | 225.00                 | 450.00                 | 495.00                 | 63.80                       | 625.4                     |

# MOORTUF FX 8 & 12 STRAND ROPE

## TECHNICAL FEATURES

|                         |                                                                          |
|-------------------------|--------------------------------------------------------------------------|
| Material                | Polyolefins & High Tenacity Polyester                                    |
| Construction            | 8 and 12 Strand Plaited                                                  |
| Colour of Rope          | White                                                                    |
| Approx Spec. Density    | 0.94 - Floating                                                          |
| Melting Point           | 165 °c                                                                   |
| Elongation at 50 % Load | 10% ( ± 2 )                                                              |
| Abrasion Resistance     | Excellent, High Durability                                               |
| U.V. Resistance         | Stabilized                                                               |
| Temperature Resistance  | 70 °c max continuous                                                     |
| Chemical Resistance     | Good, solvents and strong oxidisers may have a mild effect               |
| Dry & wet Conditions    | Wet strength equals dry strength                                         |
| Range of use            | Fishing, Inland Shipping, Merchant Navy, Industry Mooring                |
| Produced Length         | - 5%, measured under tension on machine, eye makes from produced length. |
| Spliced Strength        | ± 10% lower                                                              |
| Weight Tolerance        | ± 5%                                                                     |
| Certificate             | All ropes and tails are certified & as per MEG4.                         |



## MOORTUF FX 8 & 12 STRAND ROPE SPECIFICATIONS:

| Size |      | Weight  |         | Min. Break Load |              |
|------|------|---------|---------|-----------------|--------------|
| Dia  | Cir. | 100 Mtr | 200 Mtr | Unspliced       | Spliced-LDBF |
| mm   | Inch | Kgs.    | Kgs.    |                 |              |
| 32   | 4    | 48.14   | 105.90  | 21.90           | 19.70        |
| 36   | 4.5  | 60.86   | 133.90  | 27.70           | 24.90        |
| 40   | 5    | 75.14   | 165.30  | 34.20           | 30.80        |
| 44   | 5.5  | 91.18   | 200.60  | 40.60           | 36.50        |
| 48   | 6    | 108.82  | 239.40  | 47.40           | 42.70        |
| 52   | 6.5  | 127.39  | 280.25  | 55.50           | 50.00        |
| 56   | 7    | 148.11  | 325.85  | 63.20           | 56.90        |
| 60   | 7.5  | 170.57  | 375.25  | 72.40           | 65.20        |
| 64   | 8    | 193.45  | 425.60  | 81.60           | 73.40        |
| 68   | 8.5  | 218.07  | 479.75  | 91.80           | 82.60        |
| 72   | 9    | 244.41  | 537.70  | 102.00          | 91.80        |
| 80   | 10   | 302.70  | 665.95  | 125.00          | 112.50       |
| 88   | 11   | 367.05  | 807.50  | 148.00          | 133.20       |
| 96   | 12   | 434.84  | 956.65  | 174.00          | 156.60       |
| 104  | 13   | 512.73  | 1128.00 | 204.00          | 183.60       |
| 112  | 14   | 594.55  | 1308.00 | 237.00          | 213.30       |
| 120  | 15   | 682.73  | 1502.00 | 272.00          | 244.80       |
| 128  | 16   | 776.82  | 1709.00 | 309.00          | 278.10       |
| 136  | 17   | 876.82  | 1929.00 | 349.00          | 314.10       |
| 144  | 18   | 983.18  | 2163.00 | 391.00          | 351.90       |
| 160  | 20   | 1213.64 | 2670.00 | 483.00          | 434.70       |

# WELDED LINK CHAIN

## ORDINARY MILD STEEL LINK CHAIN

### SHORT LINK CHAIN SPECIFICATIONS:

| LINK SPECIFICATION |       |      |      | TEST LOAD | BREAKING LOAD | NET WT PER 200FT (KG) |        |
|--------------------|-------|------|------|-----------|---------------|-----------------------|--------|
| D                  |       | L    | W    |           |               | B.F.                  | H.D.G  |
| IN                 | MM    | MM   | MM   | KG        | KG            |                       |        |
| 1/8                | 3.20  | 16   | 12   | 200       | 400           | 11.40                 | 11.74  |
| 5/32               | 4.00  | 18.5 | 14.5 | 300       | 600           | 18.60                 | 19.00  |
| 3/16               | 4.70  | 19   | 17   | 400       | 800           | 26.20                 | 27.00  |
| 7/32               | 5.50  | 20   | 19   | 550       | 1100          | 36.80                 | 38.00  |
| 1/4                | 6.35  | 22   | 21   | 750       | 1500          | 50.00                 | 51.50  |
| 5/16               | 7.94  | 26.5 | 27.2 | 1200      | 2400          | 80.00                 | 82.40  |
| 3/8                | 9.50  | 30   | 32   | 1700      | 3400          | 122.00                | 125.70 |
| 7/16               | 11.11 | 34   | 36   | 2300      | 4600          | 164.00                | 169.00 |
| 1/2                | 12.70 | 39   | 43   | 3000      | 6000          | 210.00                | 216.00 |
| 5/8                | 15.80 | 45   | 53   | 4700      | 9400          | 334.00                | 344.00 |
| 3/4                | 19.00 | 55   | 63   | 6800      | 13600         | 485.00                | 499.00 |
| 7/8                | 22.20 | 64   | 74   | 9250      | 18500         | 656.00                | 675.00 |
| 1                  | 25.40 | 73   | 84   | 12150     | 24300         | 870.00                | 896.00 |

### MEDIUM LINK CHAIN SPECIFICATIONS:

| LINK SPECIFICATION |       |     |      | TEST LOAD | BREAKING LOAD | NET WT PER 200FT (KG) |        |
|--------------------|-------|-----|------|-----------|---------------|-----------------------|--------|
| D                  |       | L   | W    |           |               | B.F.                  | H.D.G  |
| IN                 | MM    | MM  | MM   | KG        | KG            |                       |        |
| 1/8                | 3.20  | 20  | 12   | 200       | 400           | 10.80                 | 11.00  |
| 5/32               | 4.00  | 23  | 15   | 300       | 600           | 17.40                 | 18.00  |
| 3/16               | 4.70  | 25  | 18   | 400       | 800           | 24.40                 | 25.00  |
| 7/32               | 5.50  | 26  | 19   | 550       | 1100          | 34.00                 | 35.00  |
| 1/4                | 6.35  | 26  | 23   | 750       | 1500          | 48.80                 | 50.00  |
| 5/16               | 7.94  | 32  | 29   | 1200      | 2400          | 76.00                 | 78.00  |
| 3/8                | 9.50  | 35  | 35   | 1700      | 3400          | 111.00                | 114.00 |
| 7/16               | 11.11 | 38  | 38   | 2300      | 4600          | 154.00                | 158.00 |
| 1/2                | 12.70 | 50  | 45.5 | 3000      | 6000          | 194.00                | 200.00 |
| 5/8                | 15.80 | 60  | 56.7 | 4700      | 9400          | 303.00                | 312.00 |
| 3/4                | 19.00 | 76  | 69   | 6800      | 13600         | 432.00                | 445.00 |
| 7/8                | 22.20 | 90  | 80   | 9250      | 18500         | 586.00                | 603.00 |
| 1                  | 25.40 | 105 | 95   | 12150     | 24300         | 770.00                | 792.00 |



# MARUTI DELUXE METER MARKING ROPE

AS PER IS 5175 : 2014

| NOMINAL DIA. (MM) | STD. COIL WT. FOR 220 MTR(KGS) | BREAKING STRENGTH (KGF) | NOMINAL DIA. (MM) | STD. COIL WT. FOR 220 MTR(KGS) | BREAKING STRENGTH (KGF) |
|-------------------|--------------------------------|-------------------------|-------------------|--------------------------------|-------------------------|
| 4                 | 1.63                           | 240                     | 26                | 67                             | 9410                    |
| 6                 | 3.67                           | 602                     | 28                | 78                             | 10700                   |
| 8                 | 6.6                            | 1060                    | 30                | 89                             | 12220                   |
| 10                | 10                             | 1560                    | 32                | 101                            | 13500                   |
| 12                | 14.5                           | 2210                    | 36                | 129                            | 16930                   |
| 14                | 20                             | 3050                    | 40                | 158                            | 20510                   |
| 16                | 25.5                           | 3770                    | 44                | 194                            | 24640                   |
| 18                | 32.5                           | 4810                    | 48                | 229                            | 28610                   |
| 20                | 40                             | 5800                    | 52                | 268                            | 33110                   |
| 22                | 48.5                           | 6960                    | 56                | 312                            | 37850                   |
| 24                | 57                             | 8130                    | 60                | 359                            | 43280                   |

AS PER IS 14929 : 2001

| NOMINAL DIA. (MM) | STD. COIL WT. FOR 220 MTR(KGS) | BREAKING STRENGTH (KGF) | NOMINAL DIA. (MM) | STD. COIL WT. FOR 220 MTR(KGS) | BREAKING STRENGTH (KGF) |
|-------------------|--------------------------------|-------------------------|-------------------|--------------------------------|-------------------------|
| 4                 | 1.63                           | 305                     | 26                | 67                             | 11250                   |
| 6                 | 3.67                           | 675                     | 28                | 78                             | 13050                   |
| 8                 | 6.6                            | 1215                    | 30                | 89                             | 14850                   |
| 10                | 10                             | 1845                    | 32                | 101                            | 16650                   |
| 12                | 14.5                           | 2700                    | 36                | 129                            | 20970                   |
| 14                | 20                             | 3690                    | 40                | 158                            | 25200                   |
| 16                | 25.5                           | 4320                    | 44                | 194                            | 30350                   |
| 18                | 32.5                           | 5490                    | 48                | 229                            | 35500                   |
| 20                | 40                             | 6840                    | 52                | 268                            | 41150                   |
| 22                | 48.5                           | 8370                    | 56                | 312                            | 46800                   |
| 24                | 57                             | 9450                    | 60                | 359                            | 53550                   |



# MARUTI ULTRA

## Applications:

- ◆ Mooring

## Properties:

- ◆ High strength at lower weights.
- ◆ Highly resistant to chemicals such as acids and alkalies.
- ◆ Floats in water, does not absorb water.
- ◆ Low elongation
- ◆ High abrasion resistance.
- ◆ Easy to splice
- ◆ Certified by DNV GL

| DIA. MM | CIR. INCH. | WEIGHT KGS/220M | MINIMUM BREAKING LOAD KGF (KILOGRAM-FORCE) |
|---------|------------|-----------------|--------------------------------------------|
| 40      | 5          | 158             | 26300                                      |
| 48      | 6          | 229             | 37500                                      |
| 56      | 7          | 312             | 53100                                      |
| 64      | 8          | 407             | 68700                                      |
| 72      | 9          | 515             | 86000                                      |
| 80      | 10         | 638             | 105800                                     |
| 96      | 12         | 917             | 150200                                     |
| 104     | 13         | 1078            | 175500                                     |
| 112     | 14         | 1254            | 203500                                     |

# MARUTI ULTRA FLEX

## Applications:

- ◆ Towing

## Properties:

- ◆ Specific gravity equivalent to nylon, hence sinks in water.
- ◆ Higher breaking strength than nylon of equivalent weight.
- ◆ Excellent abrasion resistance.
- ◆ Controlled elongation.
- ◆ High energy absorption.
- ◆ Wet breaking strength higher than that of nylon as fibers do not absorb moisture.
- ◆ Retains flexibility even after prolonged use.
- ◆ High UV resistance.

| DIA. MM | CIR. INCH. | WEIGHT KGS/220M | MINIMUM BREAKING LOAD KGF (KILOGRAM-FORCE) |
|---------|------------|-----------------|--------------------------------------------|
| 40      | 5          | 195             | 30700                                      |
| 48      | 6          | 282             | 46290                                      |
| 56      | 7          | 378             | 62800                                      |
| 64      | 8          | 495             | 82600                                      |
| 72      | 9          | 627             | 102000                                     |
| 80      | 10         | 775             | 125500                                     |
| 96      | 12         | 1315            | 185000                                     |

3 STRAND ROPE

8 STRAND ROPE

# WIRE ROPE SLINGS



2-Leg Bridle



3-Leg Bridle



4-Leg Bridle

## WIRE ROPE SLINGS SPECIFICATIONS:

| Rope Dia.<br>(in.) | Eye Hook Cap.<br>(tons) | Rated Capacity (tons)* |      |      | Oblong Link Stock Dia. | Rated Capacity (tons)* |      |      | Oblong Link Stock Dia. | Rated Capacity (tons)* |      |      | Oblong Link Stock Dia. |
|--------------------|-------------------------|------------------------|------|------|------------------------|------------------------|------|------|------------------------|------------------------|------|------|------------------------|
|                    |                         | 60°                    | 45°  | 30°  |                        | 60°                    | 45°  | 30°  |                        | 60°                    | 45°  | 30°  |                        |
| 1/4                | 1                       | 1.1                    | 0.91 | 0.65 | 1/2                    | 1.7                    | 1.4  | 0.97 | 5/8                    | 2.2                    | 1.8  | 1.3  | 5/8                    |
| 5/16               | 1 1/2                   | 1.7                    | 1.4  | 1.0  | 5/8                    | 2.6                    | 2.1  | 1.5  | 3/4                    | 3.5                    | 2.8  | 2.0  | 5/8                    |
| 3/8                | 2                       | 2.5                    | 2.0  | 1.4  | 3/4                    | 3.7                    | 3.0  | 2.2  | 7/8                    | 5.0                    | 4.1  | 2.9  | 7/8                    |
| 7/16               | 3                       | 3.4                    | 2.7  | 1.9  | 7/8                    | 5.0                    | 4.1  | 2.9  | 1                      | 6.7                    | 5.5  | 3.9  | 1                      |
| 1/2                | 3                       | 4.4                    | 3.6  | 2.5  | 3/4                    | 6.6                    | 5.4  | 3.8  | 1                      | 8.8                    | 7.1  | 5.1  | 1                      |
| 9/16               | 5                       | 5.5                    | 4.5  | 3.2  | 7/8                    | 8.3                    | 6.8  | 4.8  | 1 1/4                  | 11.0                   | 9.0  | 6.4  | 1 3/8                  |
| 5/8                | 5                       | 6.8                    | 5.5  | 3.9  | 1                      | 10.0                   | 8.3  | 5.9  | 1 1/4                  | 14.0                   | 11.0 | 7.8  | 1 1/2                  |
| 3/4                | 7                       | 9.7                    | 7.9  | 5.6  | 1                      | 15.0                   | 12.0 | 8.4  | 1 1/2                  | 19.0                   | 16.0 | 11.0 | 1 3/4                  |
| 7/8                | 11                      | 13.0                   | 11.0 | 7.6  | 1 1/4                  | 20.0                   | 16.0 | 11.0 | 1 3/4                  | 26.0                   | 21.0 | 15.0 | 2                      |
| 1                  | 10                      | 17.0                   | 14.0 | 9.8  | 1 1/2                  | 26.0                   | 21.0 | 15.0 | 2                      | 34.0                   | 28.0 | 20.0 | 2                      |
| 1 1/8              | 15                      | 21.0                   | 17.0 | 12.0 | 1 1/2                  | 31.0                   | 26.0 | 18.0 | 2 1/4                  | 42.0                   | 34.0 | 24.0 | 2 1/4                  |
| 1 1/4              | 15                      | 26.0                   | 21.0 | 15.0 | 1 3/4                  | 38.0                   | 31.0 | 22.0 | 2 1/2                  | 51.0                   | 42.0 | 30.0 | 2 1/2                  |
| 1 1/2              | 22                      | 37.0                   | 30.0 | 21.0 | 2                      | 55.0                   | 45.0 | 32.0 | 2 3/4                  | 73.0                   | 60.0 | 42.0 | 3                      |

# CHAIN SLING ONE LEG

Self Locking Hook - Grade 80

Safety Factor 4:1 - Conforms to the EN 818-4 Standard



| Ø chain<br>mm | WLL<br>kg | Chain size<br>A X B X Ø d<br>mm | Hook<br>passage<br>mm | Weight 2 m in kg |         | Weight<br>m +<br>kg |
|---------------|-----------|---------------------------------|-----------------------|------------------|---------|---------------------|
|               |           |                                 |                       | ECH 102          | ECH 104 |                     |
| 6             | 1 120     | 100 x 60 x 13                   | 33                    | 2,1              | 2,3     | 0,8                 |
| 7             | 1 500     | 100 x 60 x 13                   | 43                    | 3,1              | 3,4     | 1,1                 |
| 8             | 2 000     | 120 x 70 x 16                   | 43                    | 3,3              | 3,6     | 1,4                 |
| 10            | 3 150     | 135 x 75 x 18                   | 47                    | 6,3              | 7,1     | 2,2                 |
| 13            | 5 300     | 150 x 90 x 22                   | 61                    | 11,2             | 12,8    | 3,8                 |
| 16            | 8 000     | 170 x 95 x 25                   | 78                    | 17,1             | 19,6    | 5,7                 |
| 19            | 11 200    | 200 x 120 x 30                  | 90                    | 37,8             | 40,8    | 7,6                 |
| 20            | 12 500    | 200 x 120 x 30                  | 90                    | 39,1             | 42,1    | 8,5                 |

# CHAIN SLING TWO LEGS

Self Locking Hooks - Grade 80

Safety Factor 4:1 - Conforms to the EN 818-4 Standard



| Ø chain<br>mm | WLL in kg<br>0° < β ≤ 45°<br>0° < α ≤ 90°<br>Factor 1,4 | WLL in kg<br>46° < β ≤ 60°<br>91° < α ≤ 120°<br>Factor 1 | Chain size<br>A X B X Ø d<br>mm | Hook<br>passage<br>mm | Weight 2 m<br>kg |         | Weight<br>m +<br>kg |
|---------------|---------------------------------------------------------|----------------------------------------------------------|---------------------------------|-----------------------|------------------|---------|---------------------|
|               |                                                         |                                                          |                                 |                       | ECH 202          | ECH 204 |                     |
| 6             | 1 600                                                   | 1 120                                                    | 120 x 70 x 16                   | 33                    | 4,8              | 5,2     | 1,6                 |
| 7             | 2 120                                                   | 1 500                                                    | 120 x 70 x 16                   | 43                    | 7,2              | 7,8     | 2,2                 |
| 8             | 2 800                                                   | 2 000                                                    | 135 x 75 x 18                   | 43                    | 8,4              | 9,0     | 2,8                 |
| 10            | 4 250                                                   | 3 150                                                    | 150 x 90 x 22                   | 47                    | 13,8             | 15,4    | 4,4                 |
| 13            | 7 500                                                   | 5 300                                                    | 170 x 95 x 25                   | 61                    | 25,6             | 31,0    | 7,6                 |
| 16            | 11 200                                                  | 8 000                                                    | 200 x 120 x 30                  | 78                    | 65,3             | 70,3    | 11,4                |
| 19            | 16 000                                                  | 11 200                                                   | 250 x 150 x 36                  | 90                    | 87,9             | 93,9    | 14,6                |
| 20            | 17 000                                                  | 12 500                                                   | 250 x 150 x 38                  | 90                    | 90,3             | 96,3    | 17                  |

# CHAIN SLING FOUR LEGS

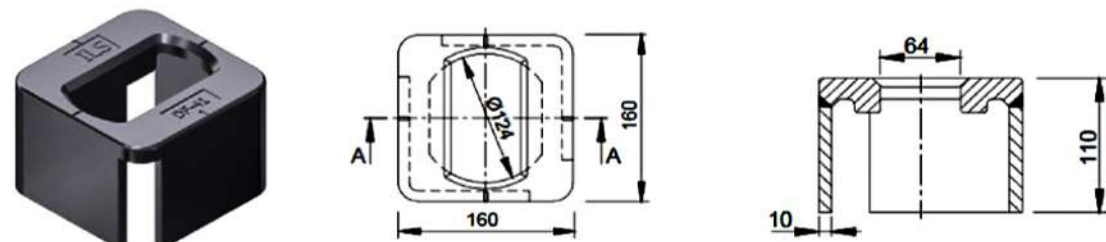
Self Locking Hooks - Grade 80

Safety Factor 4:1 - Conforms to the EN 818-4 Standard



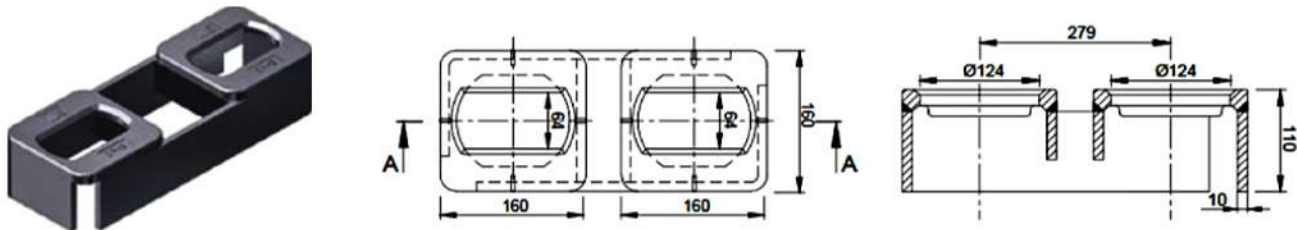
| Ø chain<br>mm | WLL in kg<br>0° < β ≤ 45°<br>0° < α ≤ 90°<br>Factor 2,1 | WLL in kg<br>46° < β ≤ 60°<br>91° < α ≤ 120°<br>Factor 1,5 | Chain size<br>A X B X Ø d<br>mm | Hook<br>passage<br>mm | Weight 2 m<br>kg |         | Weight<br>m +<br>kg |
|---------------|---------------------------------------------------------|------------------------------------------------------------|---------------------------------|-----------------------|------------------|---------|---------------------|
|               |                                                         |                                                            |                                 |                       | ECH 402          | ECH 404 |                     |
| 6             | 2 360                                                   | 1 700                                                      | 120 x 70 x 16                   | 33                    | 8,7              | 10,4    | 3,2                 |
| 7             | 3 150                                                   | 2 240                                                      | 135 x 75 x 18                   | 43                    | 13,0             | 15,5    | 4,4                 |
| 8             | 4 250                                                   | 3 000                                                      | 150 x 90 x 22                   | 43                    | 15,6             | 18,5    | 5,6                 |
| 10            | 6 700                                                   | 4 750                                                      | 170 x 95 x 25                   | 47                    | 25,6             | 31,5    | 8,8                 |
| 13            | 11 200                                                  | 8 000                                                      | 200 x 120 x 30                  | 61                    | 43,6             | 57,6    | 15,2                |
| 16            | 17 000                                                  | 11 800                                                     | 250 x 150 x 38                  | 78                    | 75,8             | 99,4    | 22,8                |
| 19            | 23 600                                                  | 17 000                                                     | 300 x 200 x 45                  | 90                    | 159,0            | 191,1   | 29,2                |
| 20            | 26 500                                                  | 19 000                                                     | 300 x 200 x 45                  | 90                    | 160,0            | 195,9   | 34,0                |

# SINGLE RAISED ISO



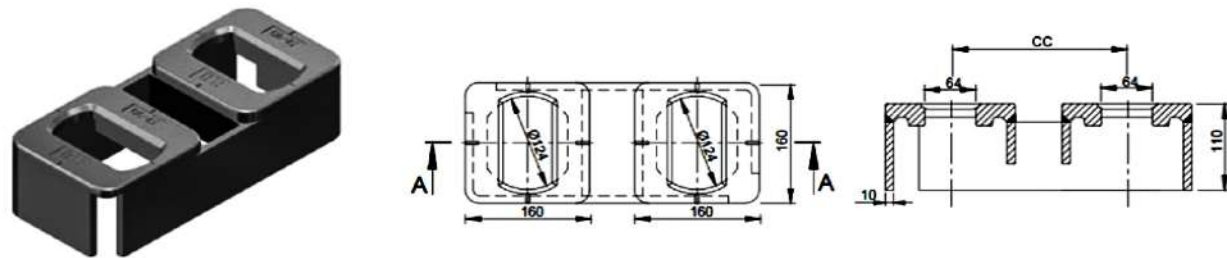
|                             |                                                                                                                                                                   |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Reference:                  | DF-41                                                                                                                                                             |
| Description:                | SINGLE RAISED ISO DECKSOCKET                                                                                                                                      |
| Weight [kg]:                | 6,2                                                                                                                                                               |
| Material:                   | Steel                                                                                                                                                             |
| Breaking load Tension [kN]: | 500                                                                                                                                                               |
| Breaking load Shear [kN]:   | 420                                                                                                                                                               |
| Finish:                     | Shot blasted + Weldable primer                                                                                                                                    |
| Remarks:                    | Fixed container foundation can be welded on the hatch cover and deck.<br>Other heights are available on request. Topplate of 28mm is also available:<br>DF-41[28] |

# DOUBLE LONGITUDINAL RAISED ISO



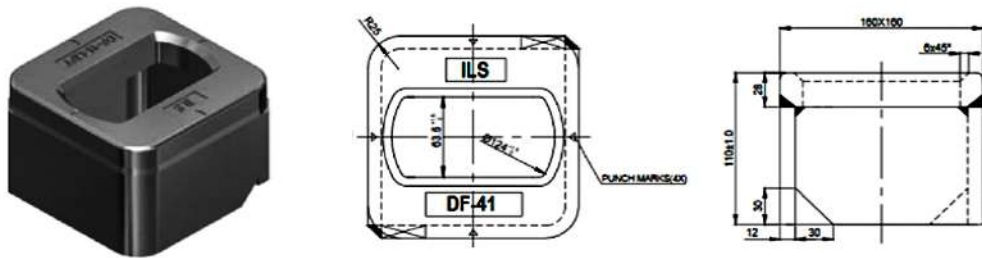
|                             |                                                                                                                         |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------|
| Reference:                  | DF-43(76)                                                                                                               |
| Description:                | DOUBLE LONGITUDINAL RAISED ISO DECKSOCKET – CC=203mm                                                                    |
| Weight [kg]:                | 13,3                                                                                                                    |
| Material:                   | Steel                                                                                                                   |
| Breaking load Tension [kN]: | 500                                                                                                                     |
| Breaking load Shear [kN]:   | 420                                                                                                                     |
| Finish:                     | Shot blasted + Weldable primer                                                                                          |
| Remarks:                    | Fixed container foundation can be welded on the hatch cover and deck.<br>Other socket dimensions are available as well. |

# DOUBLE TRANSVERSAL RAISED ISO



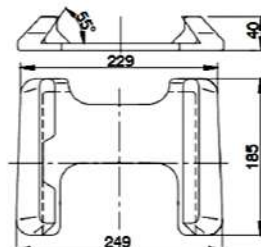
|                             |                                                                                                                                                                                                                                                                                      |
|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Reference:                  | DF-42(25)                                                                                                                                                                                                                                                                            |
| Description:                | DOUBLE TRANSVERSAL RAISED ISO DECKSOCKET – CC=203mm                                                                                                                                                                                                                                  |
| Weight [kg]:                | 12,4                                                                                                                                                                                                                                                                                 |
| Material:                   | Steel                                                                                                                                                                                                                                                                                |
| Breaking load Tension [kN]: | 500                                                                                                                                                                                                                                                                                  |
| Breaking load Shear [kN]:   | 420                                                                                                                                                                                                                                                                                  |
| Finish:                     | Shot blasted + Weldable primer                                                                                                                                                                                                                                                       |
| Remarks:                    | Fixed container foundation can be welded on the hatch cover and deck.<br>Other socket dimensions are available as well. Plastic plugs for the ISO-holes can also be requested. Model DF-42(38) (CC=216mm) and DF-42(80)-V (CC=258mm) also available. Other CC distances upon request |

# LIFTING RAISED ISO



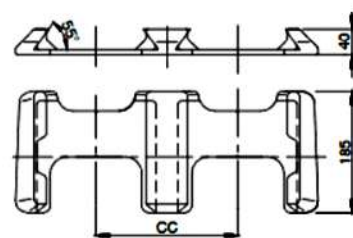
|                             |                                |
|-----------------------------|--------------------------------|
| Reference:                  | DF-41-LIFT                     |
| Description:                | LIFTING RAISED ISO DECKSOCKET  |
| Weight [kg]:                | 8,0                            |
| Material:                   | Steel                          |
| Breaking load Tension [kN]: | 500                            |
| Breaking load Shear [kN]:   | 420                            |
| Finish:                     | Shot blasted + Weldable primer |
| Remarks:                    | Lifts the hatch covers.        |

## SINGLE DOVETAIL



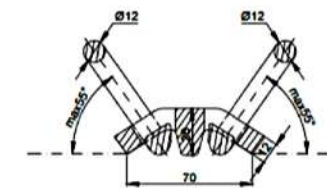
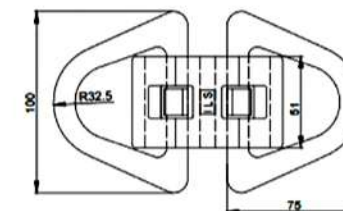
|                             |                                                                                                                 |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------|
| Reference:                  | DF-31-55                                                                                                        |
| Description:                | SINGLE DOVETAIL DECKSOCKET 55°                                                                                  |
| Weight [kg]:                | 3,8                                                                                                             |
| Material:                   | Precision cast steel                                                                                            |
| Breaking load Tension [kN]: | 500                                                                                                             |
| Breaking load Shear [kN]:   | 420                                                                                                             |
| Finish:                     | Shot blasted + Weldable primer                                                                                  |
| Remarks:                    | Fixed container foundation can be welded on the hatch cover and deck.<br>Elongated types are available as well. |

## DOUBLE TRANSVERSAL DOVETAIL



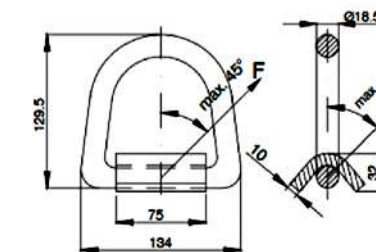
|                             |                                                                                                                                                                                               |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Reference:                  | DF-32-55(25)                                                                                                                                                                                  |
| Description:                | DOUBLE TRANSVERSAL DOVETAIL DECKSOCKET 55° – CC=203mm                                                                                                                                         |
| Weight [kg]:                | 6,2                                                                                                                                                                                           |
| Material:                   | Precision cast steel                                                                                                                                                                          |
| Breaking load Tension [kN]: | 500                                                                                                                                                                                           |
| Breaking load Shear [kN]:   | 420                                                                                                                                                                                           |
| Finish:                     | Shot blasted + Weldable primer                                                                                                                                                                |
| Remarks:                    | Fixed container foundation can be welded on the hatch cover and deck.<br>Elongated types are available as well. Model DF-32(80)-V (CC=258mm) also available. Other CC distances upon request. |

## DOUBLE CARLASHING D-RING



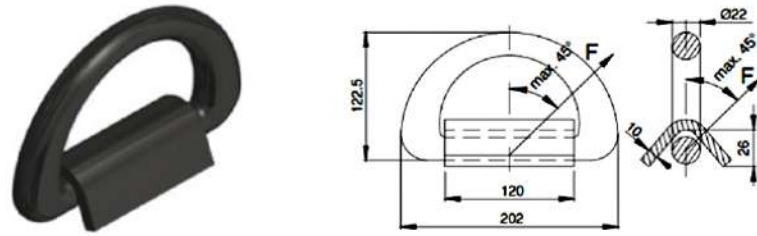
|                             |                                        |
|-----------------------------|----------------------------------------|
| Reference:                  | LP-09                                  |
| Description:                | DOUBLE CARLASHING D-RING 4T            |
| Weight [kg]:                | 0,95                                   |
| Material:                   | Forged steel                           |
| Breaking load Tension [kN]: | 2×40                                   |
| Breaking load Shear [kN]:   | 420                                    |
| Finish:                     | Self-coloured                          |
| Remarks:                    | Foldable lashing point for carlashing. |

## D-RING 20T



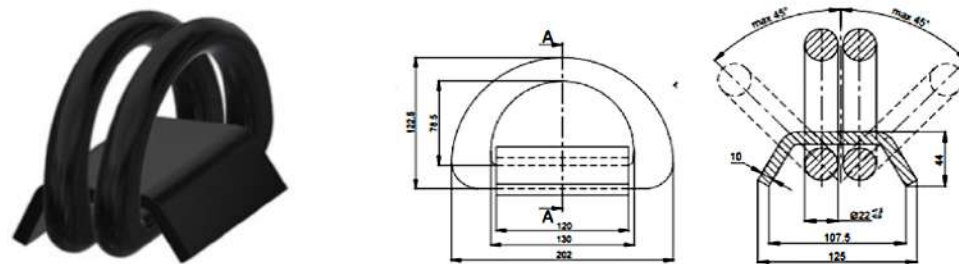
|                             |                                        |
|-----------------------------|----------------------------------------|
| Reference:                  | LP-13                                  |
| Description:                | D-RING 20T                             |
| Weight [kg]:                | 1,3                                    |
| Material:                   | Drop forged ring + Bended steel plates |
| Breaking load Tension [kN]: | 200                                    |
| Breaking load Shear [kN]:   |                                        |
| Finish:                     | Self-coloured                          |
| Remarks:                    | Foldable lashing point on deck.        |

## D-RING 36T



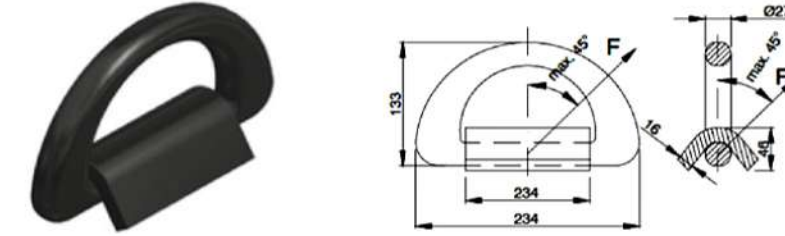
|                             |                                        |
|-----------------------------|----------------------------------------|
| Reference:                  | LP-11                                  |
| Description:                | D-RING 36T                             |
| Weight [kg]:                | 2,7                                    |
| Material:                   | Drop forged ring + Bended steel plates |
| Breaking load Tension [kN]: | 360                                    |
| Breaking load Shear [kN]:   |                                        |
| Finish:                     | Self-coloured                          |
| Remarks:                    | Foldable lashing point on deck.        |

## DOUBLE D-RING 36T



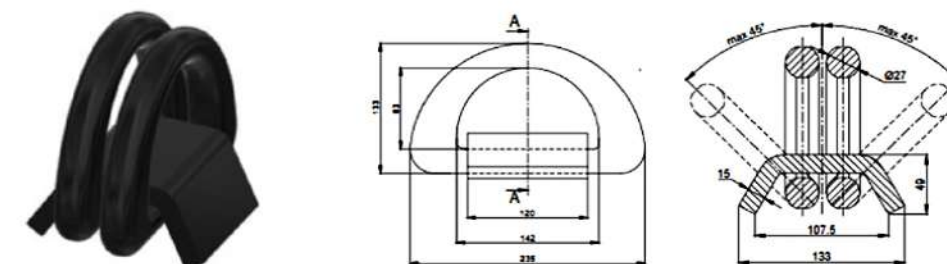
|                             |                                        |
|-----------------------------|----------------------------------------|
| Reference:                  | LP-17                                  |
| Description:                | DOUBLE D-RING 36T                      |
| Weight [kg]:                | 5,03                                   |
| Material:                   | Drop forged ring + Bended steel plates |
| Breaking load Tension [kN]: | 360                                    |
| Breaking load Shear [kN]:   |                                        |
| Finish:                     | Shot blasted + Weldable primer         |
| Remarks:                    | Foldable lashing point on deck.        |

## D-RING 50T



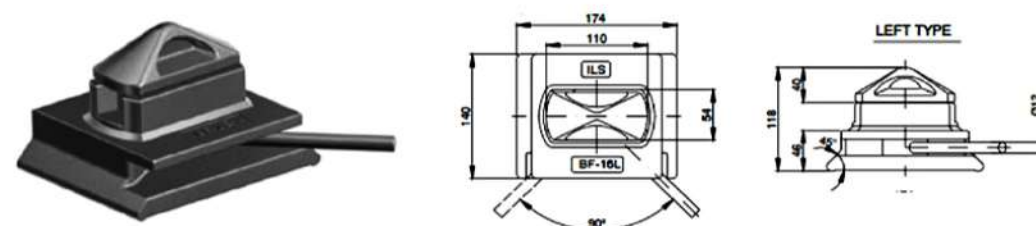
|                             |                                        |
|-----------------------------|----------------------------------------|
| Reference:                  | LP-14                                  |
| Description:                | D-RING 50T                             |
| Weight [kg]:                | 4,3                                    |
| Material:                   | Drop forged ring + Bended steel plates |
| Breaking load Tension [kN]: | 500                                    |
| Breaking load Shear [kN]:   |                                        |
| Finish:                     | Self-coloured                          |
| Remarks:                    | Foldable lashing point on deck.        |

## DOUBLE D-RING 50T



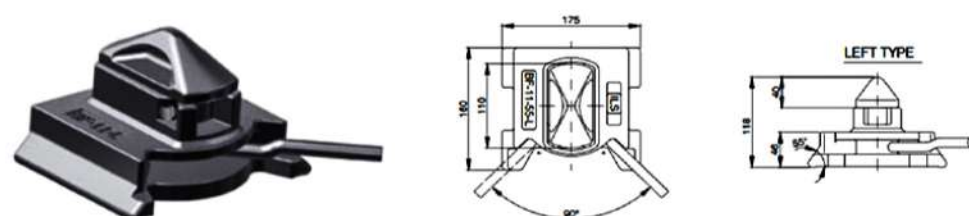
|                             |                                        |
|-----------------------------|----------------------------------------|
| Reference:                  | LP-18                                  |
| Description:                | DOUBLE D-RING 50T                      |
| Weight [kg]:                | 11,14                                  |
| Material:                   | Drop forged ring + Bended steel plates |
| Breaking load Tension [kN]: | 500                                    |
| Breaking load Shear [kN]:   |                                        |
| Finish:                     | Shot blasted + Weldable primer         |
| Remarks:                    | Foldable lashing point on deck.        |

# TRANSVERSAL DOVETAIL TWISTLOCK 45°



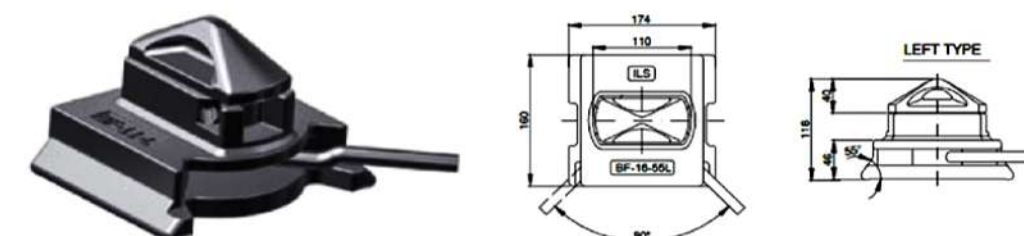
|                             |                                                                                         |
|-----------------------------|-----------------------------------------------------------------------------------------|
| Reference:                  | <b>BF-16L or R</b>                                                                      |
| Description:                | <b>TRANSVERSAL DOVETAIL TWISTLOCK 45°</b>                                               |
| Weight [kg]:                | 6,8                                                                                     |
| Material:                   | Cast steel housing + Forged steel cone                                                  |
| Breaking load Tension [kN]: | 500                                                                                     |
| Breaking load Shear [kN]:   | 420                                                                                     |
| Finish:                     | Shot blasted + Hot dip galvanized                                                       |
| Remarks:                    | Twistlocks for securing containers on the deck. To be fitted in dovetail sockets of 45° |

# LONGITUDINAL DOVETAIL TWISTLOCK 55°



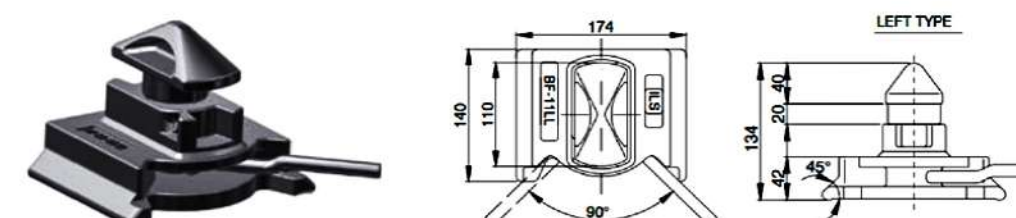
|                             |                                                                                         |
|-----------------------------|-----------------------------------------------------------------------------------------|
| Reference:                  | <b>BF-11-55L or R</b>                                                                   |
| Description:                | <b>LONGITUDINAL DOVETAIL TWISTLOCK 55°</b>                                              |
| Weight [kg]:                | 7,2                                                                                     |
| Material:                   | Cast steel housing + Forged steel cone                                                  |
| Breaking load Tension [kN]: | 500                                                                                     |
| Breaking load Shear [kN]:   | 420                                                                                     |
| Finish:                     | Shot blasted + Hot dip galvanized                                                       |
| Remarks:                    | Twistlocks for securing containers on the deck. To be fitted in dovetail sockets of 55° |

# TRANSVERSAL DOVETAIL TWISTLOCK 55°



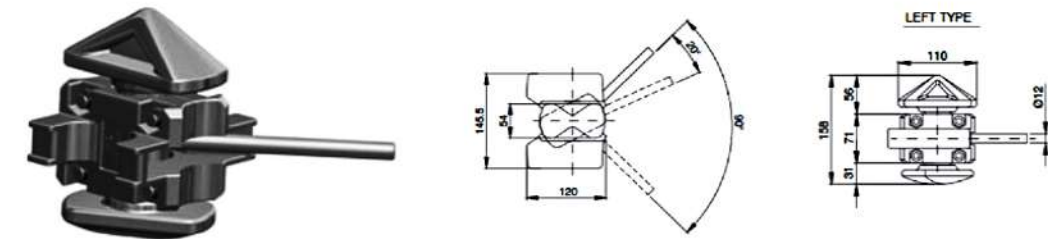
|                             |                                                                                          |
|-----------------------------|------------------------------------------------------------------------------------------|
| Reference:                  | <b>BF-16-55L or R</b>                                                                    |
| Description:                | <b>TRANSVERSAL DOVETAIL TWISTLOCK 55°</b>                                                |
| Weight [kg]:                | 7,6                                                                                      |
| Material:                   | Cast steel housing + Forged steel cone                                                   |
| Breaking load Tension [kN]: | 500                                                                                      |
| Breaking load Shear [kN]:   | 420                                                                                      |
| Finish:                     | Shot blasted + Hot dip galvanized                                                        |
| Remarks:                    | Twistlocks for securing containers on the deck. To be fitted in dovetail sockets of 55°. |

# DOVETAIL LINE LOAD TWISTLOCK 45°

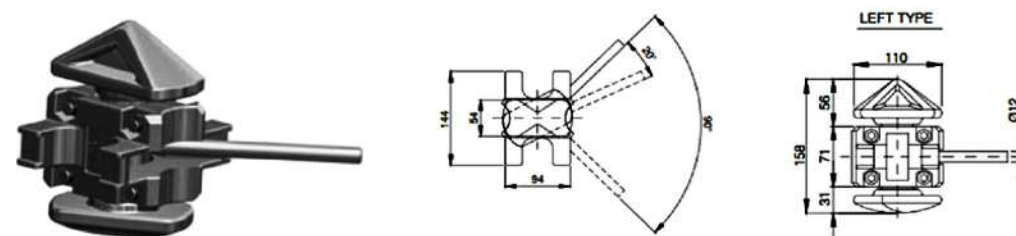


|                             |                                                                                                                      |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------|
| Reference:                  | <b>BF-11L</b>                                                                                                        |
| Description:                | <b>DOVETAIL LINE LOAD TWISTLOCK 45°</b>                                                                              |
| Weight [kg]:                | 6,6                                                                                                                  |
| Material:                   | Cast steel housing + Forged steel cone                                                                               |
| Breaking load Tension [kN]: | 500                                                                                                                  |
| Breaking load Shear [kN]:   | 420                                                                                                                  |
| Finish:                     | Shot blasted + Hot dip galvanized                                                                                    |
| Remarks:                    | Twistlocks for securing containers on the deck. To be fitted in dovetail sockets of 45°. Only for line load stowage. |

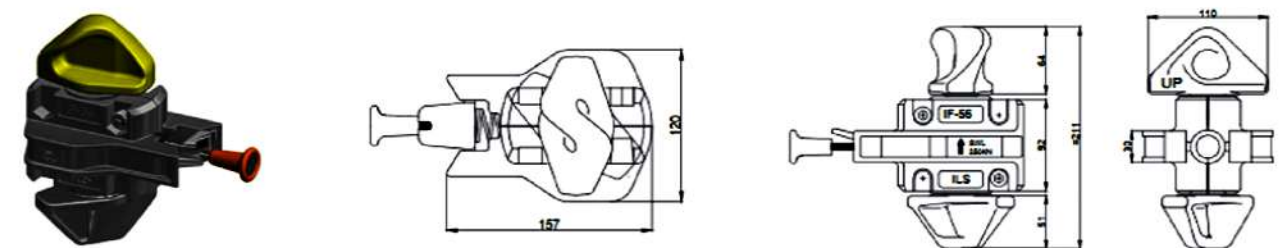
# BIG SURFACE TWISTLOCK



## STANDARD INTERMEDIATE TWISTLOCK



# SEMI-AUTOMATIC TWISTLOCK



## KNOB LASHING BAR



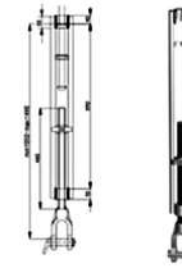
|                             |                                                                                                                                                                                                        |
|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Reference:                  | <b>LB-44(2400)</b>                                                                                                                                                                                     |
| Description:                | <b>KNOB LASHING BAR</b>                                                                                                                                                                                |
| Weight [kg]:                | 12,0                                                                                                                                                                                                   |
| Material:                   | Forged high-tensile steel                                                                                                                                                                              |
| Breaking load Tension [kN]: | 500                                                                                                                                                                                                    |
| Breaking load Shear [kN]:   |                                                                                                                                                                                                        |
| Finish:                     | Shot blasted + Hot dip galvanized                                                                                                                                                                      |
| Remarks:                    | Standard lengths of 2,4m/2,5m/4,95m/5,045m are always available in stock.<br>Other lengths upon request.<br>Lashing bars are used together with turnbuckles for securing container stacks on the deck. |

## VERTICAL KNOB LASHING BAR



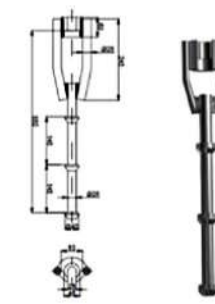
|                             |                                                                                                                                                                                          |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Reference:                  | <b>LB-44-V(1660)</b>                                                                                                                                                                     |
| Description:                | <b>VERTICAL KNOB LASHING BAR</b>                                                                                                                                                         |
| Weight [kg]:                | 10,0                                                                                                                                                                                     |
| Material:                   | Forged high-tensile steel                                                                                                                                                                |
| Breaking load Tension [kN]: | 500                                                                                                                                                                                      |
| Breaking load Shear [kN]:   |                                                                                                                                                                                          |
| Finish:                     | Shot blasted + Hot dip galvanized                                                                                                                                                        |
| Remarks:                    | Standard lengths of 1,66m/4,48m are always available in stock. Other lengths upon request.<br>Lashing bars are used together with turnbuckles for securing container stacks on the deck. |

## KNOB/JAW TURNBUCKLE



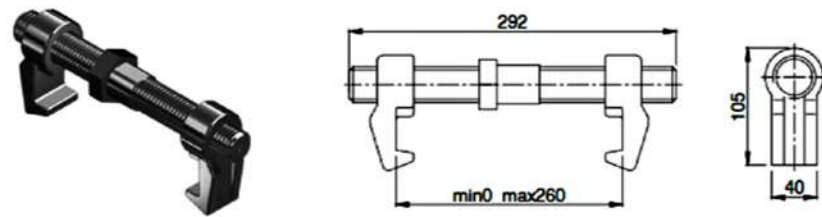
|                             |                                                                      |
|-----------------------------|----------------------------------------------------------------------|
| Reference:                  | <b>ST-4508</b>                                                       |
| Description:                | <b>KNOB/JAW TURNBUCKLE</b>                                           |
| Weight [kg]:                | 13,4                                                                 |
| Material:                   | High tension steel                                                   |
| Breaking load Tension [kN]: | 500                                                                  |
| Breaking load Shear [kN]:   |                                                                      |
| Finish:                     | Shot blasted + Hot dip galvanized                                    |
| Remarks:                    | Other lengths upon request. To tighten knot-type lashing bars LB-44. |

## EXTENSION ROD



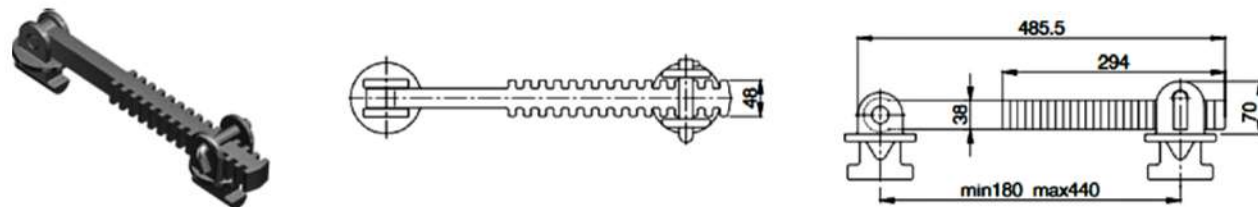
|                             |                                                                                                                                              |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| Reference:                  | <b>LB-47(550)</b>                                                                                                                            |
| Description:                | <b>EXTENSION ROD</b>                                                                                                                         |
| Weight [kg]:                | 4,95                                                                                                                                         |
| Material:                   | Forged high-tensile steel                                                                                                                    |
| Breaking load Tension [kN]: | 500                                                                                                                                          |
| Breaking load Shear [kN]:   |                                                                                                                                              |
| Finish:                     | Shot blasted + Hot dip galvanized                                                                                                            |
| Remarks:                    | Extension rod to be used with lashing bars LB-44. Standard lengths of 0,55m/1,23m are always available in stock. Other lengths upon request. |

## TENSION BRIDGE FITTING



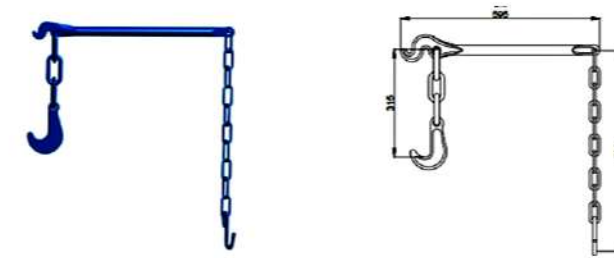
|                             |                                                     |
|-----------------------------|-----------------------------------------------------|
| Reference:                  | <b>SB-1S</b>                                        |
| Description:                | <b>TENSION BRIDGE FITTING</b>                       |
| Weight [kg]:                | 2.8                                                 |
| Material:                   | High tensile steel + Precision casting              |
| Breaking load Tension [kN]: | 100                                                 |
| Breaking load Shear [kN]:   |                                                     |
| Finish:                     | Shot blasted + Hot dip galvanized                   |
| Remarks:                    | To interconnect 2 containers standing side by side. |

## TENSION/COMPRESSION BRIDGE FITTING



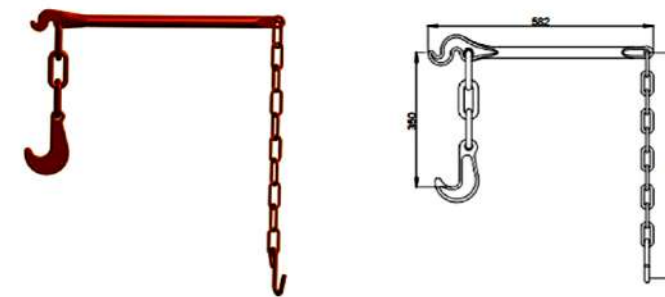
|                             |                                                     |
|-----------------------------|-----------------------------------------------------|
| Reference:                  | <b>SB-7</b>                                         |
| Description:                | <b>TENSION/COMPRESSION BRIDGE FITTING</b>           |
| Weight [kg]:                | 8.6                                                 |
| Material:                   | High tensile steel + Precision casting              |
| Breaking load Tension [kN]: | 200                                                 |
| Breaking load Shear [kN]:   |                                                     |
| Finish:                     | Shot blasted + Hot dip galvanized                   |
| Remarks:                    | To interconnect 2 containers standing side by side. |

## TENSION LEVER 11mm



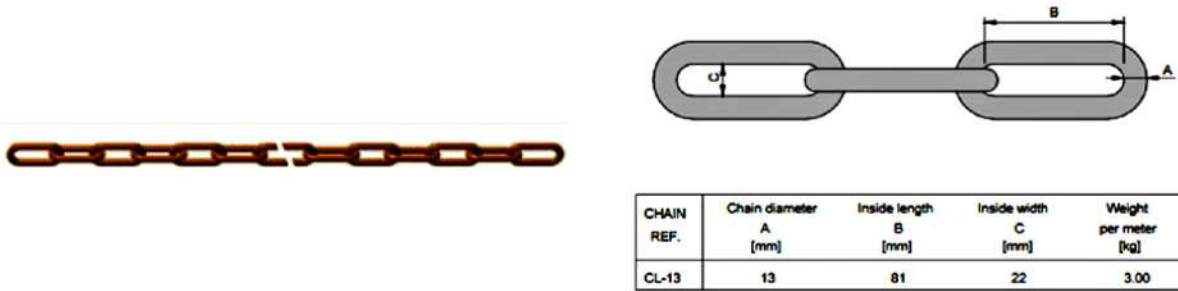
|                             |                                 |
|-----------------------------|---------------------------------|
| Reference:                  | <b>LT-615</b>                   |
| Description:                | <b>TENSION LEVER 11mm</b>       |
| Weight [kg]:                | 4.3                             |
| Material:                   | Forged steel, bended steel wire |
| Breaking load Tension [kN]: | 150                             |
| Breaking load Shear [kN]:   |                                 |
| Finish:                     | Primer painted                  |
| Remarks:                    | To tighten 11mm chain.          |

## TENSION LEVER 13mm



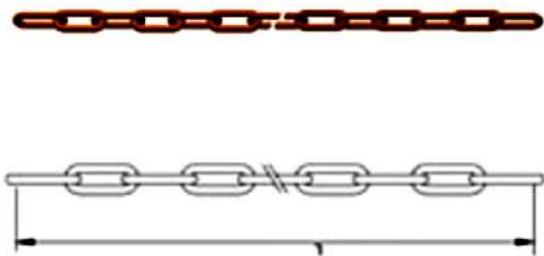
|                             |                                 |
|-----------------------------|---------------------------------|
| Reference:                  | <b>LT-620</b>                   |
| Description:                | <b>TENSION LEVER 13mm</b>       |
| Weight [kg]:                | 5.55                            |
| Material:                   | Forged steel, bended steel wire |
| Breaking load Tension [kN]: | 200                             |
| Breaking load Shear [kN]:   |                                 |
| Finish:                     | Primer painted                  |
| Remarks:                    | To tighten 13mm chain.          |

# CHAIN 13mm



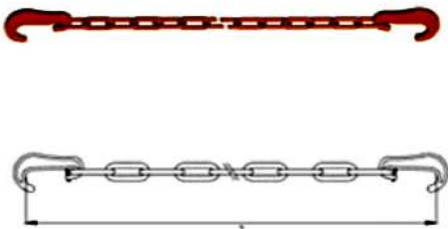
|                             |                                          |
|-----------------------------|------------------------------------------|
| Reference:                  | CL-13                                    |
| Description:                | CHAIN 13mm                               |
| Weight [kg]:                | 3                                        |
| Material:                   | High-tensile steel                       |
| Breaking load Tension [kN]: | 200                                      |
| Breaking load Shear [kN]:   |                                          |
| Finish:                     | Painted                                  |
| Remarks:                    | Customized colours and lengths possible. |

# CHAINLASHING WITHOUT END FITTINGS



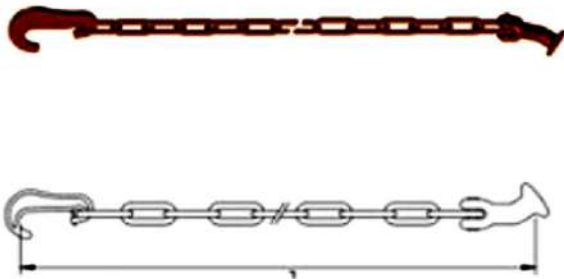
|                             |                                          |
|-----------------------------|------------------------------------------|
| Reference:                  | LA0 + diam + length                      |
| Description:                | CHAINLASHING WITHOUT END FITTINGS        |
| Weight [kg]:                |                                          |
| Material:                   | High-tensile steel                       |
| Breaking load Tension [kN]: |                                          |
| Breaking load Shear [kN]:   |                                          |
| Finish:                     | Painted                                  |
| Remarks:                    | Customized colours and lengths possible. |

# CHAINLASHING HOOK/HOOK



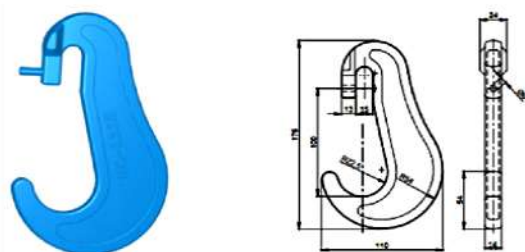
|                             |                                          |
|-----------------------------|------------------------------------------|
| Reference:                  | LA1 + diam + length                      |
| Description:                | CHAINLASHING HOOK/HOOK                   |
| Weight [kg]:                |                                          |
| Material:                   | High-tensile steel                       |
| Breaking load Tension [kN]: |                                          |
| Breaking load Shear [kN]:   |                                          |
| Finish:                     | Painted                                  |
| Remarks:                    | Customized colours and lengths possible. |

# CHAINLASHING HOOK/ELEPHANT FOOT



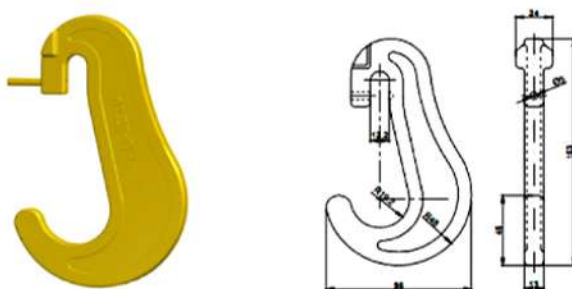
|                             |                                          |
|-----------------------------|------------------------------------------|
| Reference:                  | LA2 + diam + length                      |
| Description:                | CHAINLASHING HOOK/ELEPHANT FOOT          |
| Weight [kg]:                |                                          |
| Material:                   | High-tensile steel                       |
| Breaking load Tension [kN]: |                                          |
| Breaking load Shear [kN]:   |                                          |
| Finish:                     | Painted                                  |
| Remarks:                    | Customized colours and lengths possible. |

## C-HOOK 11mm



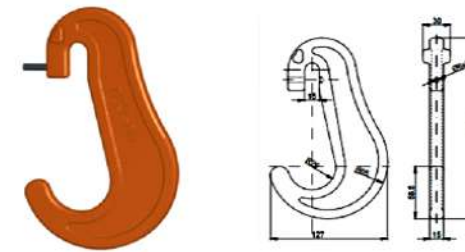
|                             |                              |
|-----------------------------|------------------------------|
| Reference:                  | HO-1315                      |
| Description:                | C-HOOK 11mm                  |
| Weight [kg]:                | 0,85                         |
| Material:                   | Drop forged steel            |
| Breaking load Tension [kN]: | 150                          |
| Breaking load Shear [kN]:   |                              |
| Finish:                     | Powder coated or dipped      |
| Remarks:                    | To be used with 11 mm chain. |

## C-HOOK 9mm



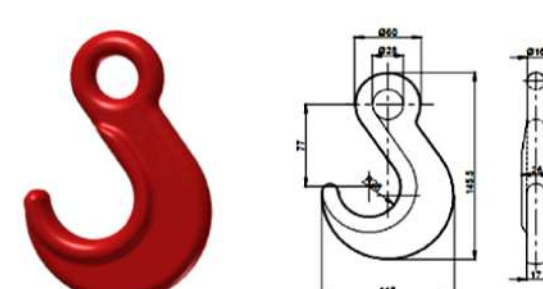
|                             |                             |
|-----------------------------|-----------------------------|
| Reference:                  | HO-1310                     |
| Description:                | C-HOOK 9mm                  |
| Weight [kg]:                | 0,6                         |
| Material:                   | Drop forged steel           |
| Breaking load Tension [kN]: | 100                         |
| Breaking load Shear [kN]:   |                             |
| Finish:                     | Powder coated or dipped     |
| Remarks:                    | To be used with 9 mm chain. |

## C-HOOK 13mm



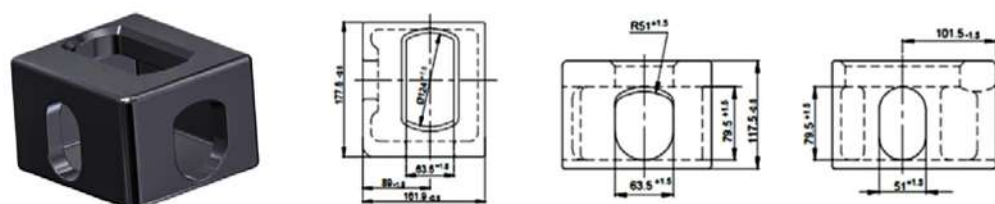
|                             |                              |
|-----------------------------|------------------------------|
| Reference:                  | HO-1321                      |
| Description:                | C-HOOK 13mm                  |
| Weight [kg]:                | 1.3                          |
| Material:                   | Drop forged steel            |
| Breaking load Tension [kN]: | 200                          |
| Breaking load Shear [kN]:   |                              |
| Finish:                     | Powder coated or dipped      |
| Remarks:                    | To be used with 13 mm chain. |

## EYE HOOK



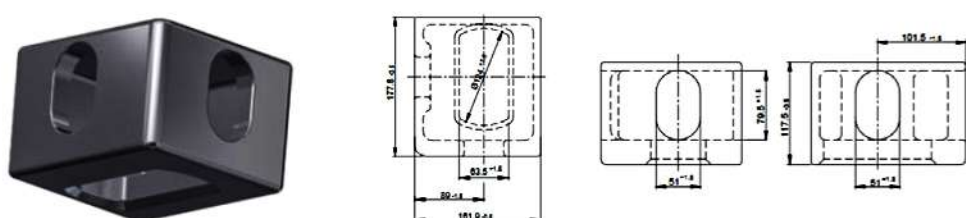
|                             |                                   |
|-----------------------------|-----------------------------------|
| Reference:                  | HO-1220                           |
| Description:                | EYE HOOK                          |
| Weight [kg]:                | 1.3                               |
| Material:                   | Drop forged steel                 |
| Breaking load Tension [kN]: | 200                               |
| Breaking load Shear [kN]:   |                                   |
| Finish:                     | Powder coated or dipped           |
| Remarks:                    | To be used with 9/11/13 mm chain. |

## TOP ISO CORNERCASTING LEFT OR RIGHT



|                             |                                     |
|-----------------------------|-------------------------------------|
| Reference:                  | CO-TL/CO-TR                         |
| Description:                | TOP ISO CORNERCASTING LEFT or RIGHT |
| Weight [kg]:                | 11                                  |
| Material:                   | Cast steel                          |
| Breaking load Tension [kN]: | 500                                 |
| Breaking load Shear [kN]:   | 420                                 |
| Finish:                     | Self-coloured                       |
| Remarks:                    | —                                   |

## BOTTOM ISO CORNERCASTING LEFT OR RIGHT



|                             |                                        |
|-----------------------------|----------------------------------------|
| Reference:                  | CO-BL/CO-BR                            |
| Description:                | BOTTOM ISO CORNERCASTING LEFT or RIGHT |
| Weight [kg]:                | 11                                     |
| Material:                   | Cast steel                             |
| Breaking load Tension [kN]: | 500                                    |
| Breaking load Shear [kN]:   | 420                                    |
| Finish:                     | Self-coloured                          |
| Remarks:                    | —                                      |

## 6x19 +CORE

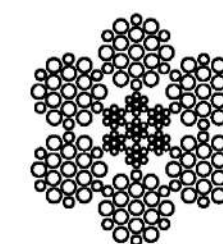
### WIRE ROPE WARRINGTON

#### Applications:

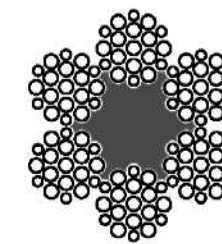
- ◆ Hoists, Cranes,
- ◆ Running Riggings
- ◆ General Engineering Purposes

#### Standard

- ◆ EN 12385



6 (6+1-6-1)+IWRC



6 (6+1-6-1)+FC

| Nomin. Rope diam. | Unit weight |       | Calculated breaking load by a nominal tensile strength of the wire |                        |                        |                        |                        |                        |
|-------------------|-------------|-------|--------------------------------------------------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
|                   | Fiber core  | IWRC  | 1570 N/mm <sup>2</sup>                                             | 1770 N/mm <sup>2</sup> | 1960 N/mm <sup>2</sup> | 1570 N/mm <sup>2</sup> | 1770 N/mm <sup>2</sup> | 1960 N/mm <sup>2</sup> |
|                   |             |       | Fibercore                                                          |                        |                        | IWRC                   |                        |                        |
| mm                | kg/m        | kg/m  | kN                                                                 |                        |                        | kN                     |                        |                        |
| 6                 | 0.134       | 0.147 | 19.5                                                               | 22.1                   | 24.4                   | 23.2                   | 26.1                   | 28.9                   |
| 7                 | 0.183       | 0.201 | 26.6                                                               | 30.1                   | 33.3                   | 31.6                   | 35.6                   | 39.5                   |
| 8                 | 0.238       | 0.263 | 34.8                                                               | 39.2                   | 43.5                   | 40.7                   | 46.6                   | 51.5                   |
| 9                 | 0.302       | 0.332 | 44.0                                                               | 49.7                   | 55.0                   | 52.3                   | 58.9                   | 65.2                   |
| 10                | 0.373       | 0.410 | 54.4                                                               | 61.3                   | 67.9                   | 64.5                   | 72.7                   | 80.5                   |
| 11                | 0.451       | 0.496 | 65.8                                                               | 74.2                   | 82.1                   | 78.0                   | 88.0                   | 97.5                   |
| 12                | 0.537       | 0.591 | 78.3                                                               | 88.3                   | 97.2                   | 92.9                   | 104.9                  | 115.0                  |
| 13                | 0.630       | 0.693 | 92                                                                 | 104                    | 114                    | 109                    | 123                    | 135                    |
| 14                | 0.730       | 0.803 | 106                                                                | 121                    | 133                    | 126                    | 143                    | 158                    |
| 15                | 0.838       | 0.922 | 122                                                                | 138                    | 152                    | 145                    | 164                    | 180                    |
| 16                | 0.965       | 1.050 | 140                                                                | 157                    | 174                    | 165                    | 186                    | 206                    |
| 17                | 1.080       | 1.190 | 158                                                                | 177                    | 196                    | 187                    | 210                    | 233                    |
| 18                | 1.210       | 1.330 | 176                                                                | 190                    | 221                    | 209                    | 236                    | 261                    |
| 19                | 1.350       | 1.490 | 196                                                                | 221                    | 245                    | 233                    | 262                    | 290                    |
| 20                | 1.490       | 1.640 | 218                                                                | 245                    | 271                    | 258                    | 291                    | 321                    |
| 22                | 1.800       | 1.980 | 263                                                                | 297                    | 329                    | 312                    | 351                    | 389                    |
| 24                | 2.150       | 2.370 | 313                                                                | 353                    | 391                    | 372                    | 419                    | 463                    |
| 26                | 2.520       | 2.770 | 367                                                                | 414                    | 458                    | 436                    | 491                    | 543                    |
| 28                | 2.920       | 3.210 | 427                                                                | 481                    | 532                    | 506                    | 570                    | 630                    |
| 30                | 3.430       | 3.710 | 490                                                                | 552                    | 611                    | 581                    | 654                    | 725                    |
| 32                | 3.820       | 4.200 | 557                                                                | 628                    | 696                    | 661                    | 744                    | 825                    |
| 34                | 4.410       | 4.800 | 628                                                                | 708                    | 784                    | 742                    | 840                    | 929                    |
| 36                | 4.830       | 5.310 | 705                                                                | 795                    | 879                    | 835                    | 938                    | 1,042                  |

## 6x24 +7FC

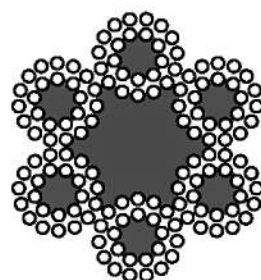
### WIRE ROPE STANDARD

#### Applications:

- ♦ Hawsers, Mooring Ropes

#### Standard

- ♦ EN 12385



6 (FC+9+15)+F

| Nominal rope diameter | Unit weight of the rope | Calculated Breaking load by a nominal tensile strength of the wire |                        |                        |
|-----------------------|-------------------------|--------------------------------------------------------------------|------------------------|------------------------|
|                       |                         | 1570 N/mm <sup>2</sup>                                             | 1770 N/mm <sup>2</sup> | 1960 N/mm <sup>2</sup> |
| mm                    | kg/m                    | kN                                                                 |                        |                        |
| 6                     | 0.115                   | 16.7                                                               | 18.9                   | 20.9                   |
| 7                     | 0.156                   | 22.8                                                               | 25.7                   | 28.5                   |
| 8                     | 0.204                   | 29.8                                                               | 33.6                   | 37.2                   |
| 9                     | 0.358                   | 37.7                                                               | 42.5                   | 47.1                   |
| 10                    | 0.318                   | 46.6                                                               | 524.4                  | 58.1                   |
| 11                    | 0.385                   | 56.3                                                               | 63.5                   | 70.3                   |
| 12                    | 0.458                   | 67.0                                                               | 75.5                   | 83.6                   |
| 13                    | 0.538                   | 78.6                                                               | 88.6                   | 98.4                   |
| 14                    | 0.624                   | 91.2                                                               | 103.0                  | 114.1                  |
| 15                    | 0.673                   | 105                                                                | 118                    | 132                    |
| 16                    | 0.815                   | 119                                                                | 133                    | 148                    |
| 17                    | 0.849                   | 134                                                                | 151                    | 167                    |
| 18                    | 1.030                   | 151                                                                | 170                    | 189                    |
| 20                    | 1.270                   | 186                                                                | 210                    | 232                    |
| 22                    | 1.540                   | 225                                                                | 254                    | 282                    |
| 24                    | 1.830                   | 268                                                                | 302                    | 334                    |
| 26                    | 2.150                   | 315                                                                | 354                    | 393                    |
| 28                    | 2.500                   | 364                                                                | 410                    | 454                    |
| 30                    | 3.040                   | 419                                                                | 472                    | 523                    |
| 32                    | 3.250                   | 477                                                                | 537                    | 595                    |
| 34                    | 3.790                   | 537                                                                | 605                    | 671                    |
| 36                    | 4.130                   | 603                                                                | 679                    | 753                    |
| 38                    | 4.830                   | 672                                                                | 757                    | 838                    |
| 40                    | 5.090                   | 744                                                                | 839                    | 929                    |
| 42                    | 5.560                   | 820                                                                | 924                    | 1,023                  |
| 44                    | 6.160                   | 901                                                                | 1,016                  | 1,124                  |

## 6x36 +CORE

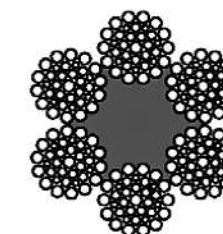
### WIRE ROPE WARRINGTON - SEALS

#### Applications:

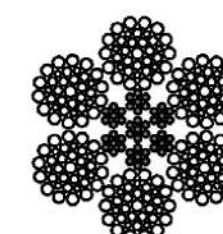
- ♦ Cranes, Hoist Ropes for Shafts
- ♦ Drag Ropes for Draglines
- ♦ Shovels
- ♦ Bucket-Wheel Excavators

#### Standard

- ♦ EN 12385; API SPEC 9A



6 (1+7+(7+7)+14)+FC



6 (1+7+(7+7)+14)+IWRC

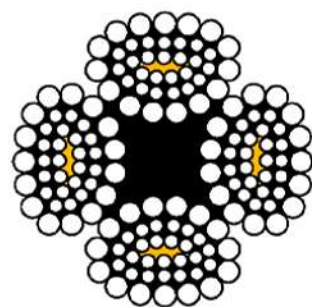
| Nomin. Rope diam. | Unit weight |            | Calculated breaking load by a nominal tensile strength of the wire |                        |                        |                        |                        |                        |                        |  |
|-------------------|-------------|------------|--------------------------------------------------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|--|
|                   | Fiber core  | Steel Core | 1570 N/mm <sup>2</sup>                                             | 1770 N/mm <sup>2</sup> | 1960 N/mm <sup>2</sup> | 1570 N/mm <sup>2</sup> | 1770 N/mm <sup>2</sup> | 1960 N/mm <sup>2</sup> | 2160 N/mm <sup>2</sup> |  |
|                   |             |            | Fiber Core                                                         |                        |                        | Steel Core             |                        |                        |                        |  |
|                   | mm          | kg/m       | kN                                                                 |                        |                        | kN                     |                        |                        |                        |  |
| 10                | 0.367       | 0.409      | 51.8                                                               | 58.4                   | 64.7                   | 55.9                   | 63.0                   | 69.8                   | 76.9                   |  |
| 11                | 0.444       | 0.495      | 62.7                                                               | 70.7                   | 78.3                   | 67.6                   | 76.2                   | 84.4                   | 93.0                   |  |
| 12                | 0.528       | 0.589      | 74.6                                                               | 84.1                   | 93.1                   | 80.5                   | 90.7                   | 100.5                  | 110.7                  |  |
| 13                | 0.620       | 0.691      | 87.6                                                               | 98.7                   | 109.3                  | 94.5                   | 106.5                  | 117.9                  | 130.0                  |  |
| 14                | 0.719       | 0.802      | 101.5                                                              | 114.5                  | 126.8                  | 109.5                  | 123.5                  | 136.8                  | 150.7                  |  |
| 16                | 0.940       | 1.047      | 132.6                                                              | 149.5                  | 165.6                  | 143.1                  | 161.3                  | 178.6                  | 196.9                  |  |
| 18                | 1.189       | 1.325      | 167.9                                                              | 189.2                  | 209.6                  | 181.1                  | 204.2                  | 226.1                  | 249.1                  |  |
| 19                | 1.325       | 1.476      | 187.0                                                              | 210.9                  | 233.5                  | 201.8                  | 227.5                  | 251.9                  | 277.6                  |  |
| 20                | 1.468       | 1.636      | 207.2                                                              | 233.6                  | 258.7                  | 223.6                  | 252.0                  | 279.1                  | 307.6                  |  |
| 22                | 1.776       | 1.980      | 250.8                                                              | 282.7                  | 313.1                  | 270.5                  | 305.0                  | 337.7                  | 372.2                  |  |
| 24                | 2.114       | 2.356      | 298.4                                                              | 336.4                  | 372.6                  | 321.9                  | 362.9                  | 401.9                  | 442.9                  |  |
| 26                | 2.481       | 2.765      | 350.2                                                              | 394.9                  | 437.2                  | 377.8                  | 426.0                  | 471.7                  | 519.8                  |  |
| 28                | 2.877       | 3.207      | 406.2                                                              | 457.9                  | 507.1                  | 438.2                  | 494.0                  | 547.0                  | 602.9                  |  |
| 30                | 3.303       | 3.681      | 466.3                                                              | 525.7                  | 582.1                  | 503.0                  | 567.1                  | 628.0                  | 692.1                  |  |
| 32                | 3.758       | 4.188      | 530.5                                                              | 598.1                  | 662.3                  | 572.3                  | 645.2                  | 714.5                  | 787.4                  |  |
| 34                | 4.243       | 4.728      | 598.9                                                              | 675.2                  | 747.7                  | 646.1                  | 728.4                  | 806.6                  | 888.9                  |  |
| 36                | 4.756       | 5.301      | 671.5                                                              | 757.0                  | 838.3                  | 724.4                  | 816.6                  | 904.3                  | 996.6                  |  |
| 38                | 5.299       | 5.906      | 748.1                                                              | 843.4                  | 934.0                  | 807.1                  | 909.9                  | 1007.6                 | 1110.4                 |  |
| 40                | 5.872       | 6.544      | 829.0                                                              | 934.6                  | 1034.9                 | 894.3                  | 1008.2                 | 1116.4                 | 1230.3                 |  |
| 42                | 6.474       | 7.215      | 913.9                                                              | 1030.4                 | 1141.0                 | 985.9                  | 1111.5                 | 1230.8                 | 1356.4                 |  |
| 44                | 7.105       | 7.918      | 1003.0                                                             | 1130.8                 | 1252.2                 | 1082.1                 | 1219.9                 | 1350.9                 | 1488.7                 |  |
| 46                | 7.766       | 8.654      | 1096.3                                                             | 1236.0                 | 1368.6                 | 1182.7                 | 1333.3                 | 1476.5                 | 1627.1                 |  |
| 48                | 8.456       | 9.423      | 1193.7                                                             | 1345.8                 | 1490.2                 | 1287.8                 | 1451.8                 | 1607.6                 | 1771.7                 |  |
| 50                | 9.175       | 10.225     | 1295.3                                                             | 1460.3                 | 1617.0                 | 1397.3                 | 1575.3                 | 1744.4                 | 1922.4                 |  |
| 52                | 9.924       | 11.059     | 1400.9                                                             | 1579.4                 | 1748.9                 | 1511.3                 | 1703.8                 | 1886.7                 | 2079.3                 |  |
| 54                | 10.702      | 11.926     | 1510.8                                                             | 1703.2                 | 1886.1                 | 1629.8                 | 1837.4                 | 2034.7                 | ---                    |  |
| 56                | 11.509      | 12.826     | 1624.8                                                             | 1831.7                 | 2028.4                 | 1752.8                 | 1976.1                 | 2188.2                 | ---                    |  |
| 58                | 12.346      | 13.759     | 1742.9                                                             | 1964.9                 | 2175.8                 | 1880.2                 | 2119.7                 | 2347.3                 | ---                    |  |
| 60                | 13.212      | 14.724     | 1865.2                                                             | 2102.8                 | 2328.5                 | 2012.1                 | 2268.4                 | 2511.9                 | ---                    |  |
| 62                | 14.107      | 15.722     | 1991.6                                                             | 2245.3                 | 2486.3                 | 2148.5                 | 2422.2                 | 2682.2                 | ---                    |  |
| 64                | 15.032      | 16.753     | 2122.1                                                             | 2392.5                 | 2649.3                 | 2289.3                 | 2581.0                 | 2858.0                 | ---                    |  |

## SURE 4x39

### Applications:

#### Cranes

- ◆ Deck Crane
- ◆ Mobile Crane
- ◆ Jib Crane
- ◆ Hoist
- ◆ Ship Crane



FC+ 4X39 (FC+9/15/15)

| Nominal Diameter<br>mm | Approximate Unit Weight | MINIMUM BREAKING FORCE                     |
|------------------------|-------------------------|--------------------------------------------|
|                        | Fiber Core<br>kg/Mtr.   | 1960 N/mm <sup>2</sup><br>Fiber Core<br>kN |
| 8                      | 0.257                   | 44.3                                       |
| 9                      | 0.326                   | 56.1                                       |
| 10                     | 0.402                   | 69.2                                       |
| 12                     | 0.579                   | 96.5                                       |
| 12.5                   | 0.628                   | 108.9                                      |
| 14                     | 0.788                   | 136.3                                      |
| 16                     | 1.030                   | 177.5                                      |
| 18                     | 1.300                   | 225.6                                      |
| 19                     | 1.450                   | 251.1                                      |
| 20                     | 1.610                   | 277.5                                      |
| 22                     | 1.950                   | 335.4                                      |
| 22.5                   | 2.020                   | 348.1                                      |
| 24                     | 2.320                   | 385.4                                      |
| 25                     | 2.510                   | 432.5                                      |
| 26                     | 2.720                   | 466.8                                      |
| 28                     | 3.150                   | 543.3                                      |
| 30                     | 3.620                   | 623.7                                      |
| 31.5                   | 4.050                   | 687.5                                      |
| 32                     | 4.200                   | 709.0                                      |
| 33.5                   | 4.600                   | 777.7                                      |
| 34                     | 4.790                   | 801.2                                      |
| 35.5                   | 5.200                   | 872.8                                      |
| 36                     | 5.300                   | 897.3                                      |
| 37.5                   | 5.780                   | 973.8                                      |
| 38                     | 5.900                   | 999.3                                      |
| 40                     | 6.600                   | 1078.7                                     |

## 6 x36 +CORE

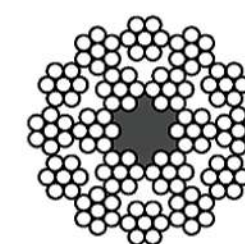
### WIRE ROPE WARRINGTON - SEALS

### Applications:

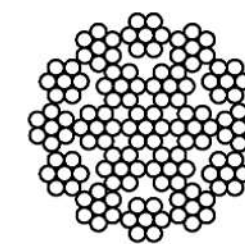
- ◆ Cranes, Hoist Ropes for Shafts
- ◆ Drag Ropes for Draglines
- ◆ Shovels
- ◆ Bucket-Wheel Excavators

### Standard

- ◆ EN 12385; API SPEC 9A



18 X 7 FC

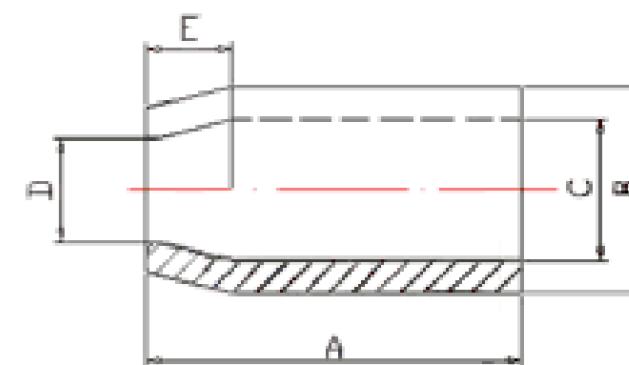


19 X 7

| Rope Dia<br>mm | Unit Weight |            | MINIMUM BREAKING FORCE |                        |                        |                        |
|----------------|-------------|------------|------------------------|------------------------|------------------------|------------------------|
|                | Fiber Core  | Steel Core | 1770 N/mm <sup>2</sup> | 1960 N/mm <sup>2</sup> | 1770 N/mm <sup>2</sup> | 1960 N/mm <sup>2</sup> |
|                | Kg/100 mtr  | Kg/100 mtr | Kn                     |                        | Kn                     |                        |
| 10             | 38.3        | 40.2       | 56.4                   | 62.4                   | 58.1                   | 64.3                   |
| 11             | 46.3        | 48.6       | 68.2                   | 75.6                   | 70.3                   | 77.8                   |
| 12             | 55.1        | 57.9       | 81.2                   | 89.9                   | 83.6                   | 92.6                   |
| 13             | 64.7        | 67.9       | 95.3                   | 105.5                  | 98.1                   | 108.7                  |
| 14             | 75.0        | 78.8       | 110.5                  | 122.4                  | 113.8                  | 126.0                  |
| 16             | 98.0        | 102.9      | 144.4                  | 159.9                  | 148.7                  | 164.6                  |
| 18             | 124.0       | 130.2      | 182.7                  | 202.3                  | 188.2                  | 208.4                  |
| 19             | 138.2       | 145.1      | 203.6                  | 225.4                  | 209.6                  | 232.2                  |
| 20             | 153.1       | 160.8      | 225.6                  | 249.8                  | 232.3                  | 257.2                  |
| 22             | 185.3       | 194.6      | 272.9                  | 302.2                  | 281.1                  | 311.2                  |
| 24             | 220.5       | 231.6      | 324.8                  | 359.7                  | 334.5                  | 370.4                  |
| 26             | 258.8       | 271.8      | 381.2                  | 422.1                  | 392.6                  | 434.7                  |
| 28             | 300.1       | 315.2      | 442.1                  | 489.6                  | 455.3                  | 504.2                  |
| 30             | 344.5       | 361.8      | 507.5                  | 562.0                  | 522.7                  | 578.8                  |
| 32             | 392.0       | 411.6      | 577.5                  | 639.4                  | 594.7                  | 658.5                  |



| SS316 CHAIN |               |               |              |              |           |               |
|-------------|---------------|---------------|--------------|--------------|-----------|---------------|
| SIZE        | WIRE DIAMETER | INSIDE LENGTH | INSIDE WIDTH | WORKING LOAD | TEST LOAD | BREAKING LOAD |
| 2MM         | 2MM           | 12MM          | 3.5MM        | 0.75KN       | 1.5KN     | 3KN           |
| 3MM         | 3MM           | 24MM          | 5MM          | 1.1KN        | 2.2KN     | 4.4KN         |
| 4MM         | 4MM           | 26MM          | 6MM          | 2.3KN        | 4.6KN     | 10KN          |
| 5MM         | 5MM           | 27MM          | 7MM          | 4KN          | 8KN       | 16KN          |
| 6MM         | 6MM           | 31MM          | 9MM          | 5.5KN        | 11KN      | 22KN          |
| 8MM         | 8MM           | 38MM          | 11MM         | 10KN         | 20KN      | 40KN          |
| 10MM        | 10MM          | 42MM          | 15MM         | 16KN         | 32KN      | 64KN          |
| 12MM        | 12MM          | 54MM          | 20MM         | 20KN         | 40KN      | 80KN          |
| 14MM        | 14MM          | 58MM          | 22MM         |              |           |               |
| 16MM        | 16MM          | 64MM          | 24MM         |              |           |               |
| 20MM        | 20MM          | 80MM          | 28MM         | 68KN         | 136KN     | 270KN         |
| 24MM        | 24MM          | 97MM          | 38MM         | 100KN        | 200KN     | 390KN         |



| SIZE (inch) | 尺寸 DIMENSION (inch) |       |      |      |      | MAX. AFTER SWAG | WEIGHT |
|-------------|---------------------|-------|------|------|------|-----------------|--------|
|             |                     |       |      |      |      | DIMENSIONS      | KGS    |
|             | A                   | B     | D    | E    | C    | (inch)          | 100Pcs |
| 1/4"        |                     | 0.66  | 0.31 | 0.28 | 0.47 | 0.57            | 2.27   |
| 5/16"       | 1.5                 | 0.91  | 0.38 | 0.4  | 0.62 | 0.75            | 6.36   |
| 3/8"        | 1.5                 | 0.91  | 0.47 | 0.39 | 0.66 | 0.75            | 6.36   |
| 7/16"       | 2                   | 1.22  | 0.53 | 0.65 | 0.85 | 1.01            | 15     |
| 1/2"        | 2                   | 1.22  | 0.63 | 0.56 | 0.91 | 1.01            | 13     |
| 9/16"       | 2.75                | 1.47  | 0.7  | 0.63 | 1.03 | 1.24            | 29     |
| 5/8"        | 2.75                | 1.47  | 0.75 | 0.63 | 1.09 | 1.24            | 26     |
| 3/4"        | 3.19                | 1.72  | 0.91 | 0.84 | 1.28 | 1.46            | 40     |
| 7/8"        | 3.56                | 2.03  | 1.03 | 1    | 1.53 | 1.68            | 60     |
| 1"          | 4                   | 2.28  | 1.16 | 1.13 | 1.72 | 1.93            | 89     |
| 1-1/8"      | 4.8                 | 2.5   | 1.28 | 1.25 | 1.94 | 2.13            | 118    |
| 1-1/4"      | 5.19                | 2.78  | 1.44 | 1.41 | 2.16 | 2.32            | 161    |
| 1-3/8"      | 5.81                | 3     | 1.56 | 1.56 | 2.38 | 2.52            | 192    |
| 1-1/2"      | 6.25                | 3.25  | 1.69 | 1.69 | 2.63 | 2.71            | 227    |
| 1-3/4"      | 7.25                | 3.84  | 1.94 | 1.97 | 3.13 | 3.1             | 366    |
| 2"          | 8.5                 | 4.38  | 2.25 | 2.25 | 3.63 | 3.56            | 514    |
| 2-1/4"      | 9.56                | 5.03  | 2.5  | 2.53 | 4.03 | 4.12            | 879    |
| 2-1/2"      | 10.5                | 5.5   | 2.75 | 2.81 | 4.50 | 4.5             | 1068   |
| 2-3/4"      | 11.5                | 5.75  | 3    | 3.09 | 4.75 | 4.7             | 1271   |
| 3"          | 12                  | 6     | 3.25 | 3.38 | 5    | 4.96            | 1335   |
| 3-1/4"      | 13                  | 6.5   | 3.86 | 3.54 | 5.43 | 5.37            | 1650   |
| 3-1/2"      | 14                  | 7     | 3.88 | 3.94 | 5.84 | 5.77            | 2106   |
| 3-3/4"      | 15                  | 7.5   | 4.06 | 4.25 | 6.31 | 6.23            | 2497   |
| 4"          | 16                  | 8.13  | 4.38 | 4.50 | 6.81 | 6.69            | 3087   |
| 4-1/2"      | 18                  | 9.13  | 4.88 | 5.06 | 7.66 | 7.45            | 4540   |
| 5"          | 20                  | 10.52 | 5.5  | 5.63 | 8.73 | 8.28            | 6600   |
| 6"          | 24                  | 12.54 | 6.5  | 6.75 | 10.2 | 9.93            | 12300  |