

## Specification of shackles for marine buoys.

### Technical specs.

- The shackles meet the performance requirement of EN 13889 grade A , class3.
- Material.
  - Body : Carbon steel.
  - Pin : Alloy steel.
- Process: drop forged quenched, tempered, hot dip galvanized.
- Finish :specification ,working load are permanently shower or every shackle

Item	Description	Qty.
1	G-215 D- shackle with collar pin nominal size $\frac{3}{4}$ " ,working load: 4 $\frac{3}{4}$ ton	2000
2	G-215 D- shackle with collar pin nominal size 1 " ,working load: 8 $\frac{1}{2}$ ton	1500
3	G-215 D- shackle with collar pin nominal size 1 $\frac{3}{4}$ " ,working load: 25 ton	300
4	G-215 D- shackle with collar pin nominal size 2 $\frac{1}{2}$ " , working load: 35 ton	400
5	G-215 D- shackle with collar pin nominal size 2 $\frac{1}{2}$ " ,working load: 55 ton	150
6	G-2130 bow shackle bolt type with nut & collar , size 2 " , working load 35 ton	150
7	G-209 bow screw pin shackle, size 1 $\frac{1}{8}$ " , working load 9.5 ton.	200
8	G-209 bow screw pin shackle, size 1 $\frac{3}{4}$ " , working load 25 ton.	150

**N.B:** Maximum proof load is 2 time the working load limit.

Minimum ultimate strength is 6 times the working load

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## **General Conditions:**

- Complete specs. & data sheet should be submitted with the offer.
  - Complete set of drawing should be sent to SCA for approval before starting production.
  - Mechanical properties & chemical analysis certificates should be delivered with shackles stamped from maker & chamber of commerce of origin country.
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