



- Forged Carbon steel, quenched and tempered.
- Tested and manufactured in accordance with DNV 2.7-1, DNV GL-ST-0378, EN 13889, ASME B30.26, U.S. Fed. Spec. RR-C-271F Type IVA, Grade A, Class 3.
- Certified by DNV 2.7-1.
- Fatigue rated to 20,000 cycles at 1.5 times the Working Load Limit (WLL).
- Charpy tested in accordance with DNV 2.7-1.
- Hot dip galvanized.
- Charpy test of 42 joules (31ft. lbs.) at -40°C (-40°F) for normal section.

**-40°C**

## DA 838 Shackle

Grade 6

**DNV 2.7-1**

**(Offshore Containers-Lifting Appliance)**



| Item No.   | Nominal Size | Working Load Limit | Dimensions (inch) |      |      |       |      |       |      | N.W.  |
|------------|--------------|--------------------|-------------------|------|------|-------|------|-------|------|-------|
|            | inch         | tonnes*            | A                 | B    | D    | E     | G    | H     | W    | lbs   |
| DA-838-13  | 1/2          | 2.00               | 1.85              | 0.52 | 0.63 | 1.30  | 1.18 | 3.34  | 0.79 | 0.9   |
| DA-838-16  | 5/8          | 3.25               | 2.40              | 0.63 | 0.75 | 1.70  | 1.50 | 4.17  | 1.06 | 1.5   |
| DA-838-19  | 3/4          | 4.75               | 2.83              | 0.75 | 0.87 | 1.97  | 1.81 | 5.04  | 1.30 | 2.2   |
| DA-838-22  | 7/8          | 6.50               | 3.39              | 0.87 | 1.02 | 2.28  | 2.09 | 5.91  | 1.50 | 3.7   |
| DA-838-26  | 1            | 8.50               | 3.78              | 1.02 | 1.10 | 2.68  | 2.40 | 6.57  | 1.73 | 5.3   |
| DA-838-28  | 1- 1/8       | 9.50               | 4.37              | 1.10 | 1.26 | 2.91  | 2.68 | 7.52  | 1.81 | 7.5   |
| DA-838-32  | 1- 1/4       | 12.00              | 4.76              | 1.26 | 1.42 | 3.30  | 2.99 | 8.07  | 2.12 | 10.6  |
| DA-838-36  | 1- 3/8       | 13.50              | 5.28              | 1.42 | 1.50 | 3.62  | 3.31 | 9.13  | 2.32 | 14.3  |
| DA-838-38  | 1- 1/2       | 17.00              | 5.57              | 1.50 | 1.77 | 3.90  | 3.62 | 10.00 | 2.36 | 19.4  |
| DA-838-45  | 1- 3/4       | 25.00              | 7.00              | 1.85 | 2.00 | 5.00  | 4.17 | 12.32 | 2.87 | 38.5  |
| DA-838-50  | 2            | 35.00              | 7.76              | 2.09 | 2.24 | 5.75  | 4.80 | 13.66 | 3.27 | 53.2  |
| DA-838-64  | 2- 1/2       | ** 55.00           | 10.51             | 2.62 | 2.76 | 7.24  | 5.71 | 17.83 | 4.13 | 95.7  |
| DA-838-76  | 3            | ** 85.00           | 12.99             | 2.99 | 3.25 | 7.87  | 6.50 | 21.50 | 5.00 | 178.2 |
| DA-838-89  | 3- 1/2       | **120.00           | 14.65             | 3.62 | 3.76 | 9.02  | 7.99 | 24.65 | 5.24 | 264.0 |
| DA-838-100 | 4            | **150.00           | 14.49             | 4.09 | 4.25 | 10.00 | 9.02 | 25.71 | 5.51 | 336.6 |

\*2t to 35t are type approved of DNV 2.7-1. Minimum Ultimate Load is 6 times the Working Load Limit.

\*\*55t to 150t meet all requirements of DNV 2.7-1. Minimum Ultimate Load is 6 times the Working Load Limit.

| Item No.   | Nominal Size | Working Load Limit | Dimensions (mm) |      |      |     |     |     |     | N.W.  |
|------------|--------------|--------------------|-----------------|------|------|-----|-----|-----|-----|-------|
|            | mm           | tonnes*            | A               | B    | D    | E   | G   | H   | W   | kg    |
| DA-838-13  | 13           | 2.00               | 47              | 13   | 16   | 33  | 30  | 85  | 20  | 0.4   |
| DA-838-16  | 16           | 3.25               | 61              | 16   | 19   | 43  | 38  | 106 | 27  | 0.7   |
| DA-838-19  | 19           | 4.75               | 72              | 19   | 22   | 50  | 46  | 126 | 33  | 1.0   |
| DA-838-22  | 22           | 6.50               | 86              | 22   | 26   | 58  | 53  | 148 | 38  | 1.7   |
| DA-838-26  | 26           | 8.50               | 96              | 26   | 28   | 68  | 61  | 166 | 44  | 2.4   |
| DA-838-28  | 28           | 9.50               | 111             | 28   | 32   | 74  | 68  | 190 | 46  | 3.4   |
| DA-838-32  | 32           | 12.00              | 121             | 32   | 36   | 84  | 76  | 210 | 54  | 4.8   |
| DA-838-36  | 36           | 13.50              | 134             | 36   | 38   | 92  | 84  | 232 | 59  | 6.5   |
| DA-838-38  | 38           | 17.00              | 146             | 38   | 44   | 99  | 92  | 254 | 60  | 8.8   |
| DA-838-45  | 45           | 25.00              | 178             | 47   | 51   | 127 | 106 | 313 | 73  | 17.5  |
| DA-838-50  | 50           | 35.00              | 197             | 53   | 57   | 146 | 122 | 347 | 83  | 24.2  |
| DA-838-64  | 64           | ** 55.00           | 267             | 66.5 | 70   | 184 | 145 | 453 | 105 | 43.5  |
| DA-838-76  | 76           | ** 85.00           | 330             | 76   | 82.5 | 200 | 165 | 546 | 127 | 81.0  |
| DA-838-89  | 89           | **120.00           | 372             | 92   | 95.5 | 229 | 203 | 626 | 133 | 120.0 |
| DA-838-100 | 100          | **150.00           | 368             | 104  | 108  | 254 | 229 | 653 | 140 | 153.0 |

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\*\*55t to 150t meet all requirements of DNV 2.7-1. Minimum Ultimate Load is 6 times the Working Load Limit.