

# INTRODUCTION



## GN ROPE FITTINGS

*North American Stocking Distributor*



8125 Saran Dr. • Playa del Rey, CA 90293  
 Phone: 310.448.5444 • Fax: 310.448.5446  
[sales@awrrinc.com](mailto:sales@awrrinc.com)  
[www.AssociatedWireRope.com](http://www.AssociatedWireRope.com)



# INTRODUCTION

GN Rope Fittings was founded in **1917** by the Bon brothers under the name Smederij N.G. Bon. In **1938**, the company was taken over by the Bodegraven brothers and renamed N.V. Nieuwkoopse Stoomsmederij.

In **1960**, this company expanded by merging with Grofsmederij Uithoorn BV and its new owners, the Vossenbergh family - who were related to the Bodegraven family. Both companies supplied equipment to the shipping, fishing and offshore industries. After some time, the two companies merged to form Grofsmederij Nieuwkoop BV located in Nieuwkoop.

Today, Grofsmederij Nieuwkoop BV, known internationally as GN Rope Fittings, is one of the leading manufacturers of mooring and heavy lifting accessories in the offshore industry and is still owned by the Vossenbergh family.

**GN Rope Fittings**  
**Grofsmederij Nieuwkoop BV**  
 Transportweg 47  
 2421 LT Nieuwkoop  
 The Netherlands

Tel.: +31 172 579 303  
 Fax: +31 172 571 073  
 E-mail: [sales@gnweb.com](mailto:sales@gnweb.com)  
 Internet: [www.gnweb.com](http://www.gnweb.com)

Bankers: ABN-AMRO bank N.V.  
 Account number: 4692.25.696  
 Swift code : ABNANL2A  
 IBAN: NL51ABNA0469225696

VAT number: NL0010.56.839.B01  
 Chamber of commerce: Leiden reg.nr. 28003642



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# LIST OF ABBREVIATION

In this catalogue, the following abbreviation have been used:

ABNT	Associação Brasileira de Normas Técnicas
ABS	American Bureau of Shipping
BV	Bureau Veritas
C	Celsius
cc	cubic centimeter
DIN	Deutsches Institut für Normung
DNV-GL	Det Norske Veritas - Germanischer Lloyd
GN	Grofsmederij Nieuwkoop
ISO	International Organization of Standardization
kg	kilogram
kN	kilonewton
LTM	Long Term Mooring
MBL	Minimum Break Load
mm	millimeter
NDT	Non-destructive testing
NEN	Nederlandse Norm
NRS	Non-rotating stopper
PL	Proof Load
ROV	Remotely Operated Vehicle
SWL	Safe Working Load
WLL	Working Load Limit

## Products

H	Shackles
K	Thimbles
SO	Sockets
SC	Links
SW	Swivels
HK	Hooks
BL	Blocks
T	Turnbuckles
TF	Tuning fork
TR	Triangle plate
WC	Wire rope clips

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# CONVERSION FACTORS

To convert from:	To:	Multiply by:
<b>Length</b>		
mm	inch	0.03937
inch	mm	25.4
m	foot (12 inch)	3.28084
foot (12 inch)	m	0.3048
<b>Volume</b>		
cc (cm <sup>3</sup> )	ci (in <sup>3</sup> )	0.06102
ci (in <sup>3</sup> )	cc (cm <sup>3</sup> )	16.38706
<b>Mass</b>		
metric tons	pounds	2204.62262
pounds	metric tons	0.00045
pounds	kilogram	0.45359
kilogram	pounds	2.20462
US tons (short tons)	metric tons	0.90718
metric tons	US tons (short tons)	1.10231
metric tons	kilogram	1000
kilogram	metric tons	0.001
metric tons	kilo Newton	9.80665
kilo Newton	metric tons	0.10197
kips	kilo Newton	4.44822
kilo Newton	kips	0.22481
<b>Torque</b>		
Newton meter	foot pound-force	0.73756
foot pound-force	Newton meter	1.35582
<b>Temperature</b>		
Celsius (Tc)	Fahrenheit (Tf)	$(Tc * 1.8) + 32$
Fahrenheit (Tf)	Celsius (Tc)	$(Tf - 32) * 0.55556$

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# CERTIFICATES

## Certificates Inspection and documents

GN products are available with several types of applicable certifications.

GN is approved manufacturer for different type of products by several classification societies.

For special products we can arrange for third-party design approvals.

On request we can deliver our products with the following certificates and inspections:

- Certificate of conformity.
- Certificate of Origin.
- Material certificate in accordance with EN 10204 - 3.1 or 3.2
- Load test certificate.
- NDT inspection, Magnetic Particle Inspection (M.P.I.) and Ultrasonic Inspection (U.S.)
- Classification society inspection certificate.
- Design approval certificate.
- FEA strength and Fatigue calculations.

M.P.I.

Examination standard	EN10228-1:2012
Acceptance standard	DNV-OS-E302

U.S.

Examination standard	EN10228-3:2012
Acceptance standard	EN10228-3:2012

You will find the cost of the certificates in our latest price list or you can ask our sales team for the applicable certification each product type.

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# CERTIFICATES

GENERAL



**ABS**  
Manufacturer  
approval



**ABS**  
Quality  
assurance  
program



**BV**  
Manufacturer  
approval



**DNV-GL**  
2.7-1



**DNV-GL**  
2.7-3



**DNV-GL**  
ISO 9001:2008



**DNV-GL**  
ISO 14001:2004



**DNV-GL**  
Manufacturer  
approval PT2



**DNV-GL**  
OHSAS 18001:2007



**DNV-GL**  
OS E302



**DNV-GL**  
OS E304



**Lloyds**  
ISO 9001:2008

SHACKLES

THIMBLES

SOCKETS

LINKS

SWIVELS

HOOKS

MOORING

SPECIALS

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# TESTING

Our products can be proofload tested on our own, in-house developed 3000 tonne test rig. These can be subjected to NDT tests by our level 2 certified staff. In addition to these in-house possibilities, we also achieved ISO 14001:2004 and OHSAS 18001:2007 certification this year, in addition to our existing ISO 9001:2008 certification.

## Calculation of test load according as follows:

Lifting shackles

≤ 25 ton

> 25 ton ≤ 175 ton

> 175 ton

$PL = (2,0 \times WLL) \text{ ton}$

$PL = (1,22 \times WLL + 20) \text{ ton}$

$PL = (1,33 \times WLL) \text{ ton}$

Shackles type D14, D16 and D17

PL = according to the offshore mooring chain guide

MBL = according to the offshore mooring chain guide

Sockets, swivels and turnbuckles

$PL = (2,0 \times WLL) \text{ ton}$

Links type SC1 and SC5

Link type SC2

Links type SC3, SC4 and SC6 up to SC9

$PL = (1,5 \times WLL) \text{ ton}$

$PL = (2,0 \times WLL) \text{ ton}$

PL = according to the offshore mooring chain guide

Hooks, tuningforks and triangle plates

≤ 25 ton

> 25 ton ≤ 175 ton

> 175 ton

$PL = (2,0 \times WLL) \text{ ton}$

$PL = (1,22 \times WLL + 20) \text{ ton}$

$PL = (1,33 \times WLL) \text{ ton}$

## Fatigue calculation of test load according as follows:

For lifting component

For mooring component

$1,5 \times WLL \times 20000$

(various load) x (quantity of cycles)

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# LOCKING DEVICES

GENERAL

SHACKLES

THIMBLES

SOCKETS

LINKS

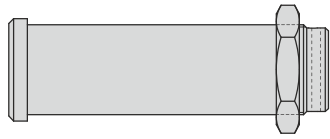
SWIVELS

HOOKS

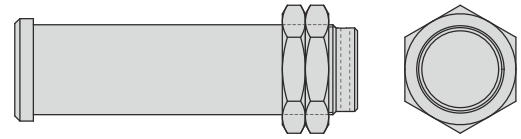
MOORING

SPECIALS

**Standard**



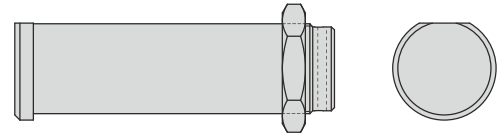
**Double nut**



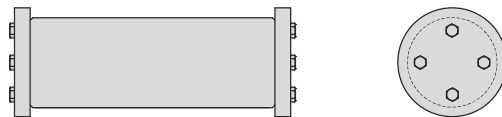
**Domed nut**



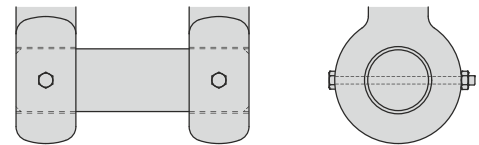
**Non-rotating stopper**



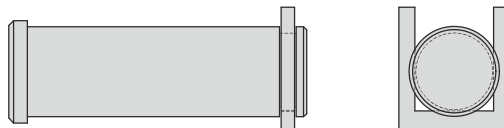
**Caps**



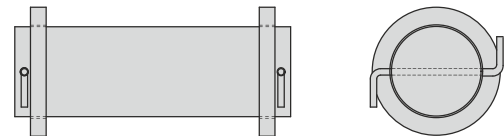
**Locking bolt+nut**



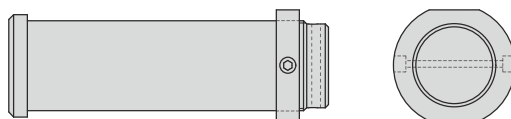
**Horse shoe**



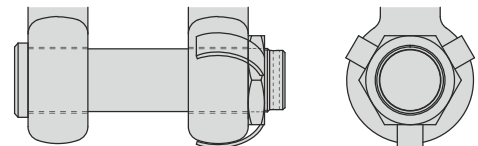
**Washers**



**Round nut**



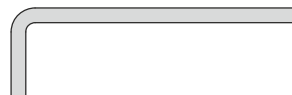
**ROV**



**Splitpin**



**Z-bar**



**Cotterpin+nut**  
*Locking bolt+nut*



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# SHACKLES



**H9**  
High alloy  
shackle



**H10**  
Bow safety  
pin shackle



**H10 super**  
Bow safety  
pin shackle  
super



**D15**  
Dee safety  
pin shackle



**H11**  
Heavy duty  
double nut  
shackle



**H14**  
Wide body  
shackle



**H12**  
Double pin /  
snorter  
shackle



**D10**  
Crown pin  
shackle



**D11-12-13**  
D-shackle  
NEN 964/  
DIN 82101



**D14**  
End joining  
shackle  
with round pin



**D16**  
Joining shackle  
with pear  
shape pin



**D17**  
Anchor  
shackle  
with oval pin

GENERAL

SHACKLES

THIMBLES

SOCKETS

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SWIVELS

HOOKS

MOORING

SPECIALS

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**Associated**  
WIRE ROPE & RIGGING

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