

Loquen



Catalog

Mooring & Fender



FENDER SYSTEMS

07



Fender Buoyancy

— Fender Buoyancy

Loquen® Buoyancy Fenders – Pneumatic
50/80 Foam-Type Fender Hippo Donut-Type
FendersSubmarine Pneumatic Buoyancy
Fenders Light Grey Naval Fender.

Certified to ISO 17357-1:2014, our fenders ensure superior impact absorption, high durability, and reliable performance—even under the most demanding conditions.



Fenders

We bring significant marine and operational expertise to all our fender clients, working closely with them to ensure the best fit and best product value tailored to their specific fender needs. The Fendercare Marine business was built on our ability to deliver best-in-class fender solutions to our clients. We are not merely a trading house aiming to sell fenders with a margin—we are also, through our Ship-to-Ship (STS) transfer division, the world's largest genuine operator of the Loquen® range of pneumatic fenders.

These fenders are ideal for short-term port calls or occasional berthing, temporary use during construction or maintenance work, offshore cargo transfers, flotation aids, support vessel operations, or dual berthing requirements. Additional fenders are also available for naval specifications.

Our full lifecycle support package includes not only the prompt and efficient sale of new fenders but also rental, purchase agreements, and repair and refurbishment services. With highly trained personnel at each location across our global network, we can receive damaged fenders for on-site repair or travel directly to your site to carry out maintenance and refurbishment on both pneumatic and foam-type fenders.

In addition to Loquen® flotation fenders, we now also offer our range of Hippo foam fenders, as well as a wide selection of UHMW panel systems and vessel fender solutions.

Our complete portfolio of fender solutions includes:

- **Loquen® pneumatic and hydropneumatic fenders**
- **Hippo foam and Hippo donut-type fenders**
- **Multipurpose fenders for dockside and ship-side installation**
- **Hippo fender systems for vessels**
- **UHMW panel systems**
- **Custom-engineered fendering solutions**

We encourage you not to see us merely as a fender supplier—but as a dependable resource you can rely on for guidance and optimal fender solutions.



Fenders



Loquen® Buoyancy Fenders – Pneumatic 50/80

ISO 17357 is firmly established within the marine industry as the international standard for the manufacturing, testing, and performance of pneumatic rubber fenders.

Over the years, Fendercare Marine has found that while some manufacturers claim full compliance with ISO 17357, it can be demonstrated that, in certain cases, irregularities exist where the supplied fenders, in fact, do not meet the standard in one or more key criteria:

- **Incomplete material testing**
- **Improperly conducted or failed hydrostatic pressure testing**
- **Inaccurate angular assessment and durability testing**
- **Incorrect use of reinforcing materials**
- **Rubber specifications that do not meet ISO 17357 requirements**
- **Expired or missing certification documentation**

Fenders

Loquen® can demonstrate compliance with PIANC 2002 guidelines for pneumatic fenders. More information is available upon request

Advantages

Safe under overload conditions

The reaction force of a pneumatic fender does not increase sharply under excessive compression. As a result, these fenders perform exceptionally well under such conditions, effectively protecting both vessels and berth structures.

No performance degradation or variation

Since pneumatic fenders rely on the compressive elasticity of air, they do not suffer from performance deterioration, even under extremely low temperatures—down to -50°C

Safety and reliability

Loquen® pneumatic rubber fenders are constructed with multiple layers of reinforced tire cord, making them highly resistant to pressure and tearing. Larger sizes (2.5m diameter and above) are equipped with a safety valve to prevent accidents in case of over-compression.



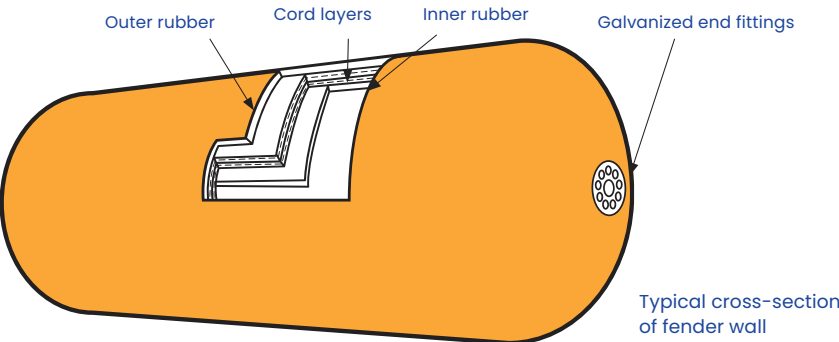
Construction

The body of the fender is composed of an inner rubber layer, multiple layers of reinforced synthetic tire cord, and an outer rubber layer. All layers are vulcanized together and tested via hydrostatic pressure testing.

The outer rubber layer is engineered to withstand heavy-duty use, including abrasion from harsh weather conditions, while protecting the inner cord and rubber layers.

The synthetic tire cord layers are arranged at optimal angles to distribute pressure and load evenly. The inner rubber compound is designed to be completely airtight, using material similar to that of a car tire’s inner lining.

To ensure maximum strength and safety, the shell of a hydropneumatic fender is thicker than that of a standard pneumatic fender



Fenders

Propriedades do Exterior e Interior de Material de Borracha				
Test Item		Inspection Methods	Outer Rubber	Inner Rubber
Before Aging	Tensile Strength	ISO 37:1994	18 MPa or more	10 Mpa or more
	Elongation	ISO 37:1994	400% or more	400% or more
	Hardness	ISO 7619:1997	60±10 (Type A Hardness – Rigid Durometer)	50±10 (Type A Hardness – Rigid Durometer)
After Aging Method Test Conditions (ISO188:1998) 70±1°C x 96 hrs	Test Conditions	ISO 37:1994	Not less than 80% of original property value	Not less than 80% of original property value
	Elongation	ISO 37:1994	Not less than 80% of original property value	Not less than 80% of original property value
	Hardness	ISO 7619:1997	Shall not exceed the original property value by more than 8	Shall not exceed the original property value by more than 8
Breaking Strength		ISO 34-1:1994	400N/cm or more	Not required
Compression Tes		ISO 815:1991	30% (70% recovery after 72 hrs)	Not required
Outer Rubber		ISO 1431-1:1989	No cracks after elongation of 20% and exposure to 50pphm at 40°C	Not required

Images for illustrative purposes only.

Simple and Low Installation Costs

The weight of the fender is supported by the water it floats in. Therefore, the fenders can be simply moored using ropes or chains at a minimal cost. They can be easily removed and relocated when not in use and transferred to other alternative mooring points when required.

Chains and Tire Nets

In the vast majority of cases, the chain and tire net will be equipped to a pneumatic fender to protect the body from damage caused by sharp objects or by absorbing pure load during mooring. The better the net, the more protection it will offer.

From our experience using these fenders ourselves, we have developed a high and unique protection system with a net that provides more protection to the fender’s body than any other net available on the market today – potentially extending the fender’s lifespan.

Fenders

Fenders

We have the broadest experience possible in the variety of protective net needs and offer a range that meets all requirements:

- Lightweight nets that meet ship crane and davit limitations.
- Heavy-duty nets to handle harsh sea conditions and high shock loads.
- Double nets to provide options for impasse.
- Tire nets without markings for naval marine and cruise ship applications.
- Cable nets for excessive lightweight applications.
- Stainless steel nets for non-magnetic requirements

All Loquen nets are designed with ease of maintenance in mind. The net is constructed in sections, making it easy and cost-effective to repair if a specific area of the net sustains damage.

Identification

Each fender has the following markings:

- Identification requirements
- International standard number and year of application
- Size (diameter and width)
- Initial internal pressure
- Manufacturing date
- Manufacturer's name
- Individual serial number
- Layer reinforcement type
- RFID marking system

The Radio Frequency Identification (RFID) is now equipped on all Loquen® fenders. The marking is embedded in both ends of the fender, allowing easy reading regardless of the positioning. This RFID marking was introduced to allow you to identify the fender individually, even if the visible marking becomes hard to read. It will also assist in record-keeping and inventory management over the long term.

Loquen is able to provide RFID-readable marking as an optional extra. This reading can be accessed on all RFID markings installed on fenders manufactured to these specifications

Loquen also maintains a database of all Loquen® fenders sold worldwide, which can help return lost or stolen fenders to their rightful owners.

Certification

Each fender is supplied with a certificate detailing the following:

- Rubber material and metal accessories
- Satisfactory test results
- Compression test record
- Size and weight
- Serial number record and RFID marking number



Technical Execution Table									
Standard Presumed Threads 50 (Metric)									
		Energia Garantida de Absorção (GEA)	Força de Reação na GEA	Pressão do Casco na GEA					
Tamanho Nominal de Diâmetro x Comprimento	Pressão Interna Inicial	E	R	P	Válvula de Fixação de Segurança e Pressão	Teste de Pressão	Peso Aproximado do Corpo da Defesa	Peso Neto Aproximado	Peso to Tipo do Sling (Tipo)
mm x mm	kPa	kNm	kN	kPa	kPa	kPa	kg	kg	kg
500 x 1000	50	6	64	132	-	200	22	160	32
700 x 1500	50	17	137	135	-	200	45	185	55
1000 x 1500	50	32	182	122	-	200	73	250	98
1000 x 2000	50	45	257	132	-	200	88	385	113
1200 x 2000	50	63	297	126	-	200	131	430	156
1350 x 2500	50	102	427	130	-	200	200	675	240
1500 x 3000	50	153	579	132	-	200	250	795	290
1700 x 3000	50	191	639	128	-	200	290	830	330
2000 x 3500	50	308	875	128	-	200	405	1165	465
2000 x 4500	50	418	1188	137	-	200	480	1700	540
2500 x 4000	50	663	1381	137	175	250	902	1745	1080
2500 x 5500	50	943	2019	148	175	250	1090	2765	1320
3300 x 4500	50	1175	1884	130	175	250	1460	2650	1840
3300 x 6500	50	1814	3015	146	175	250	1870	3840	2250
3300 x 10600	50	3067	5257	158	175	250	2560	6755	3060
4500 x 9000	50	4752	5747	146	175	250	3940	7365	-
4500 x 12000	50	6473	7984	154	175	250	4790	9875	-

Notes:
1. The figures in the table comply with the requirements of ISO 1735
2. The weight of the defender body and the net may vary by ±10%. The net weights are based on Loquen's standard design.
3. Special sizes are available upon request.

Images for illustrative purposes only.

Fenders

Technical Execution Table									
Standard Presumed Threads 80 (Metric)									
		Energia Garantida de Absorção (GEA)	Força de Reação na GEA	Pressão do Casco na GEA					
Tamanho Nominal de Diâmetro x Comprimento	Pressão Interna Inicial	E	R	P	Válvula de Fixação de Segurança e Pressão	Teste de Pressão	Peso Aproximado do Corpo da Defesa	Peso Neto Aproximado	Peso to Tipo do Sling (Tipo II)
mm x mm	kPa	kNm	kN	kPa	kPa	kPa	kg	kg	kg
500 x 1000	80	8	85	174	-	250	24	160	34
700 x 1500	80	24	180	177	-	250	47	185	57
1000 x 1500	80	45	239	160	-	250	76	250	101
1000 x 2000	80	63	338	174	-	250	92	385	117
1200 x 2000	80	88	390	166	-	250	135	430	160
1350 x 2500	80	142	561	170	-	250	205	675	245
1500 x 3000	80	214	761	174	-	250	277	795	317
1700 x 3000	80	267	840	168	-	250	316	830	356
2000 x 3500	80	430	1150	168	-	250	413	1165	473
2000 x 4500	80	584	1560	179	-	250	488	1700	548
2500 x 4000	80	925	1815	180	230	300	1010	1745	1190
2500 x 5500	80	1317	2653	195	230	300	1230	2765	1460
3300 x 4500	80	1640	2476	171	230	300	1720	2650	2090
3300 x 6500	80	2532	3961	191	230	300	2200	3840	2570
3300 x 10600	80	4281	6907	208	230	300	3030	6755	3520
4500 x 9000	80	6633	7551	192	230	300	4380	7365	-
4500 x 12000	80	9037	10490	202	230	300	5330	9875	-

Notes:
1. The figures in the table comply with the requirements of ISO 17357
2. The weight of the defender body and the net may vary by ±10%. The net weights are based on Loquen's standard design.
3. Special sizes are available upon request.

Images for illustrative purposes only.

Fenders

Pneumatic Floating Submarine Fenders

To provide complete surface and subsurface protection, pneumatic floating submarine fenders are deployed vertically. They are stabilized with water ballast and feature a counterweight attached to the base. The weight, shape, and deployment method of the counterweight can be customized to suit each specific application.

Global Deployment

Loquen® submarine fenders have been supplied worldwide, including to:

- Australia
- Brazil
- Canada
- Greece
- Japan
- United Kingdom
- United States

Introduced in 1984, these fenders are now extensively used by vessels globally.

Key Advantages

- Cost-effective alternative to deep-water catamarans
- Easy to reposition, offering mooring flexibility
- Simple to transport, enabling emergency mooring setups
- Minimal maintenance required
- Resistant to extreme weather conditions

Specifications

Available in standard sizes and pressure ratings, Loquen submarine fenders accommodate all submarine designs—from small conventional models to the largest nuclear submarines in service today.

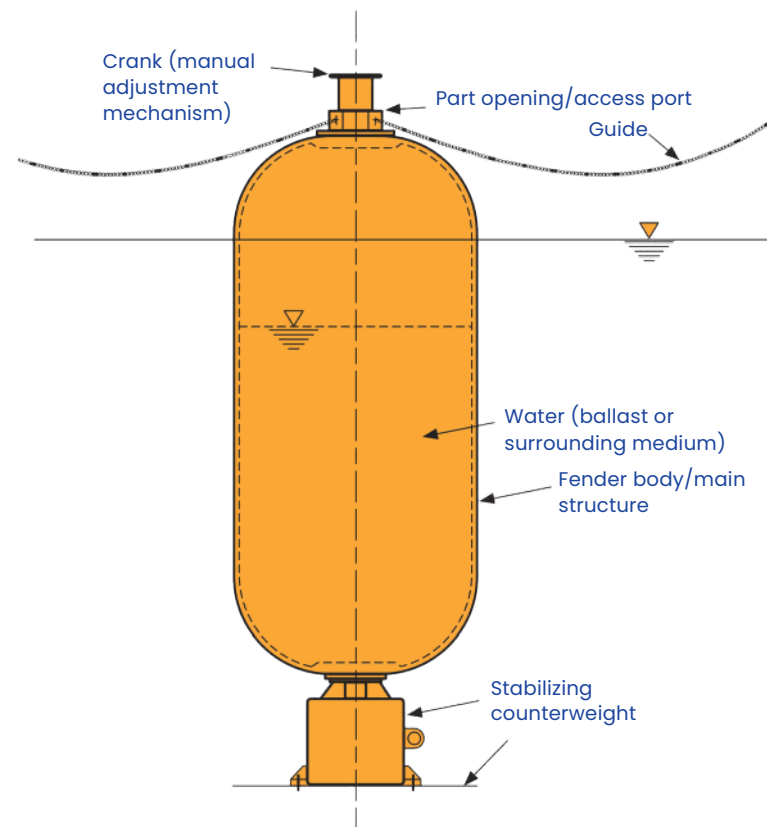
- Adjustable counterweight systems
- Tailored dimensions for specialized vessels
- Pressure variants for different depths

Contruction	
Dimensions (Diameter x Length)	Inflation/operational pressure (typically in kPa or bar)
2000mm x 6000mm	0.5kgf/cm2
2500mm x 5500mm	0.5kgf/cm2
2500mm x 9100mm	0.5kgf/cm2
3300mm x 6500mm	0.5kgf/cm2
3300mm x 10600mm	0.5kgf/cm2
4500mm x 9000mm	0.8kgf/cm2

Images for illustrative purposes only.



Fenders

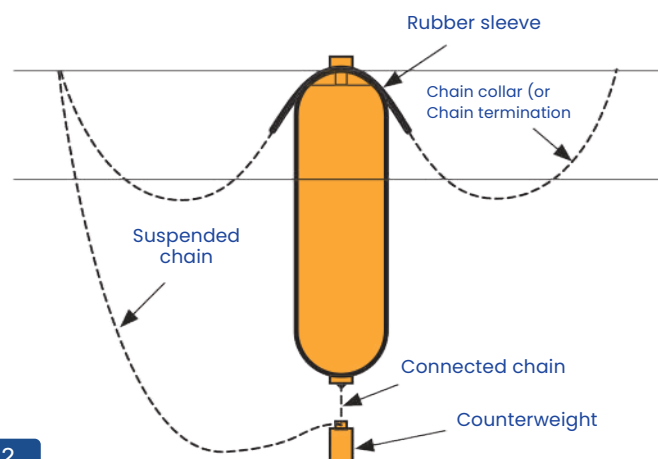


Submarine fenders are designed to provide higher burst strength than standard surface fenders, with minimum burst pressures of

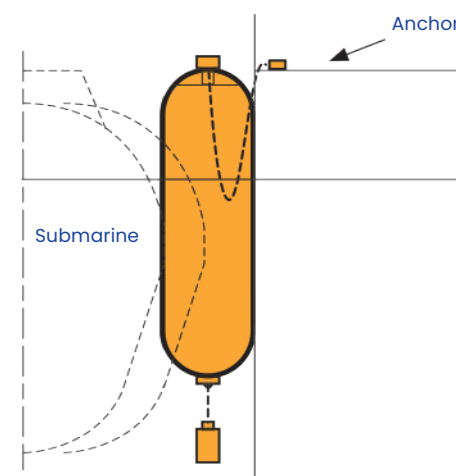
- Diameter $\leq 2000\text{mm}$ = 4.9kgf/cm
- Diameter $\geq 2500\text{mm}$ = 5.7kgf/cm²

For easier loading/unloading, a manhole opening is located at each fender end. Additionally, submarine fenders include a safety valve to release excess pressure during compression events

Installation Components



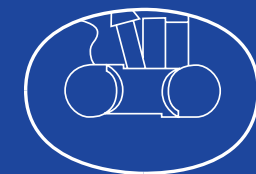
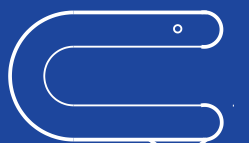
Related Elements



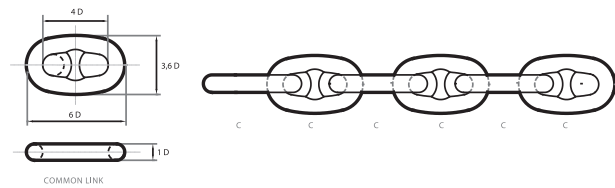
MOORING EQUIPMENTS

- Anchor Chain
- Mooring Chain
- Accessory
- Drawing of Production
- Mechanical Properties
- Weight
- Testing Load of Anchor Chain and Accessories
- Kenter Shackle
- Offshore Mooring Chain Accessories
- C Type Shaped Detachable Connecting Link
- Triangle Plate Straight Type
- Hook
- Rope Shackle Link

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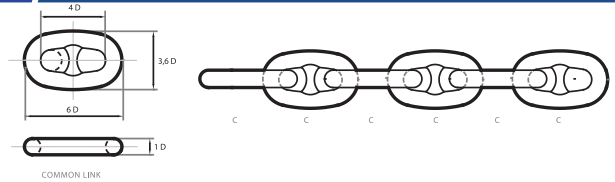
Achor Chain



Product	Stud anchor chain	Studless anchor chain
Grade	M2. M3	M2. M3
Size	12.5-178mm	12.5-178mm
Certificate	ABS, BV, CCS, CR, DNV GL, KR, LR, NK, RINA, RMRS	

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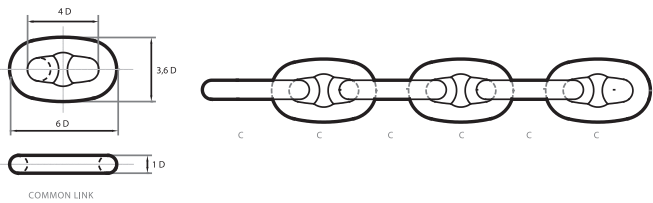
Mooring Chain



Product	Stud mooring chain	Studless anchor chain
Grade	R3, R3S, R4, R4S, R5, R6	R3, R3S, R4, R4S, R5, R6
Size	38-200mm	38-200mm
Certificate	ABS, BV, CCS, CR, DNV GL, KR, LR, NK, RINA, RMRS	

Images for illustrative purposes only.

Acessory

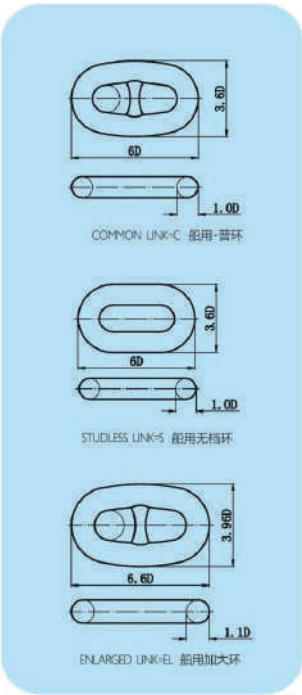


Product	Anchor Chain Accessories	Mooring Chain Accessories
Grade	M2, M3	R3, R3S, R4, R4S, R5, R6
Size	152mm	187mm
Certificate	ABS, BV, CCS, CR, DNV-GI, KR, LR, NK, RINA, RMRS	ABS, BV, CCS, DNV-GI, LR, NK, RMRS

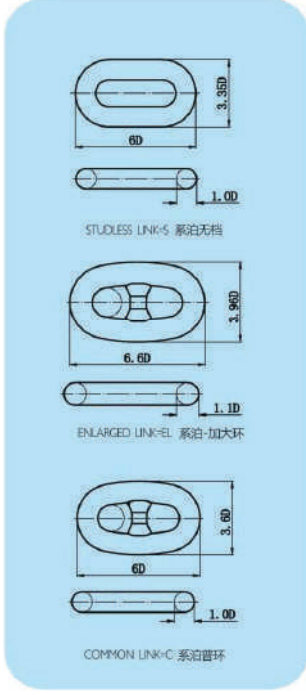
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Drawings of Production

Anchor Chain-Enlarged Link

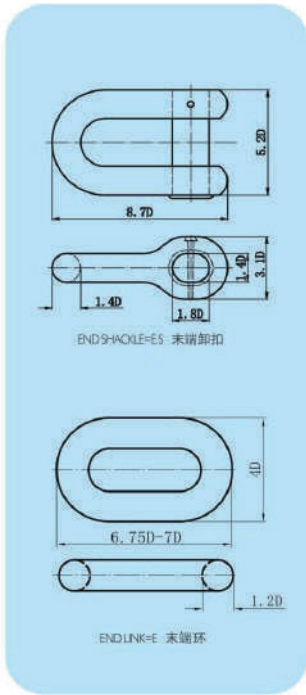


Mooring Chain-Studless Link Mooring Chain-Enlarged Link



Joining Shackle

End Link



Mechanincal Properties

PRODUCT ETA MAY VERY ACCORDING TO SPECIFIC PROJECT PREMISES

Anchor Chain						
Grade	Yield Strength (N mm .min)	Tensie Strenght (N mm .min)	Elongation (%,min)	Reduction Of Area (%,min)	Charpy V-notch	
					Test Temperature (c)	Impact (J.min)
2	> 295	490-690	≥22	---	0	≥27
3	>410	>690	≥17	≥40	0	≥60 ≥50(weld)
*4	>490	>780	≥12	>50	-20	≥45 ≥33(weld)

Images for illustrative purposes only.

PRODUCT ETA MAY VERY ACCORDING TO SPECIFIC PROJECT PREMISES

Mooring Chain							
Grade	Yield Strength (N mm .min)	Tensie Strenght (N mm .min)	Elongation (%,min)	Reduction Of Area (%,min)	Charpy V-notch		
					Impact (j.min)		
					Test Temperature (c)	Base Part	Weld Part
Api Spec 2F(ORQ)	---	641	17	40	0	58	49
					-15	40	36
ABS RQ3 DNV NVR3	410	690	17	50	0	60	50
					-20	40	30
ABS RQ3S DNV NVR3S	490	770	15	50	0	65	53
					-20	45	33
ABS RQ4 DNV NVR4	580	860	12	50	-20	50	36
ABS R4S DNV NVR5	700	960	12	50	-20	56	40
ABS R5 DNV NVR5	760	1000	12	50	-20	58	42
*R6	840	1110	12	50	-20	58	42

Images for illustrative purposes only.

Weight

Chain Diameter (mm)	Stud Link Chain KG 27.5 M	Common link	Enlarged link	End Link	Kenter Shackle	Joining Shackle	End Shackle	Swivel	Anchor Swivel Shackle A.SWS(a)	Anchor Swivel Shackle A.SWS(b)
12.5	105	0.19	0.26	0.26	0.45	0.48	1.1	0.8	6.4	1.8
14	142	0.26	0.39	0.32	0.6	0.67	1.5	1.05	9	2.5
16	175	0.35	0.49	0.57	0.65	0.95	1.52	1.34	14	3.2
17.5	197	0.50	0.66	0.67	0.88	1.34	2.05	1.73	14	4.9
19	245	0.66	0.85	1.06	1.13	1.84	2.41	2.17	17	6.3
20.5	268	0.80	1.02	1.06	1.36	2.2	3.25	2.2	17	7.9
22	324	1.04	1.30	1.58	1.64	2.66	3.95	3.5	22	9.8
24	370	1.30	1.65	1.84	2.13	3.4	5.12	4.53	22	12.8
26	431	1.64	2.03	2.74	2.58	4.5	6.7	5.79	43	16.2
28	496	2.04	2.48	3.23	3.3	5.19	8.1	7.25	43	20.3
30	563	2.48	3.58	3.74	4.15	6.32	10	9	98	24.9
32	635	2.98	4.45	4.74	5.06	8.24	11.77	10.03	98	30.2
34	712	3.54	5.21	5.54	6.01	9.56	14.2	12.75	118	36.3
36	800	4.23	5.99	6.95	6.89	11.31	16.55	14.96	118	43.1
38	888	4.96	6.15	7.66	8.4	13.45	19.55	17.44	118	51
40	1033	6.04	8.01	8.2	9.63	15.5	22.8	20.25	128	59
42	1084	6.65	9.04	9.92	11	18.1	26	25.4	128	68
44	1197	7.73	10.65	11.42	12.45	20.25	29.71	26.6	160	79
46	1310	8.80	11.54	13.92	14.1	23.33	34.3	30.67	160	90
48	1438	10.06	14.44	15.67	16.7	27.5	38.0	35.0	160	102
50	1546	11.28	16.06	17.7	19.0	31.6	45.2	40.5	289	115
52	1661	12.68	17.85	18.97	20.3	34.0	50.9	49.5	289	130
54	1791	14.10	19.60	20.84	23.7	38.5	53.8	50.5	300	145
56	1926	15.66	21.69	23.55	26.7	46.0	63.0	55.0	300	162
58	2086	17.83	24.0	25.95	27.2	46.8	70.0	64.6	330	180
60	2249	19.90	26.0	28.48	27.7	51.0	77.5	71.3	330	199
62	2361	21.66	28.63	30.81	35	59.2	86.3	77.7	330	220
64	2516	23.51	31.33	32.7	38.4	62.7	96.3	83.3	458	242
66	2676	25.98	35.0	38.4	42.3	75	99.6	88.7	458	265
68	2885	28.60	39.72	39.5	46.0	76.7	102.6	100.0	458	290
70	3010	31.00	43.33	43.8	48.7	90	126.2	107.8	522	317
73	3274	35.20	48.30	49	53.0	95	138.2	125.6	522	359
76	3548	39.90	53.6	57.1	60.7	107	146	143.8	522	405
78	3737	43.00	59.6	62.3	65.5	116	164	154	815	438
81	4030	48.60	66.0	67.4	75	130	190	188	815	491
84	4334	53.50	69.0	74.4	90	136	212	198	1007	547
87	4650	58.90	81.1	84.6	96	160	237	215	1007	608
90	4976	66.35	88.0	91	108	176	245	238	1300	673
92	5199	71.22	97.5	100	114	196	257	252	1300	781
95	5544	78.08	101	109	128	215	300	269	1300	833
97	5780	83.77	107	117	133	222	335	301	1610	842
100	6143	89.03	120	127	146	252	353	330	1610	923
102	6398	95.50	130	134	158	267	378	344	1610	980
105	6773	104.20	139	150	160	294	385	387	1827	1069
107	7033	111.63	148	160	180	305	420	428	1827	1131
111	7569	124.08	161	171	198	325	463	448	2022	1262
114	7983	135.31	168	190	204	345	485	460	2022	1368
117	8409	147.53	177	209	225	365	528	475	2022	1478
120	8863	155.49	204	229	250	400	570	547	2336	1595
122	9143	166.64	218	234	263	435	602	649	2336	1676
124	9399	170.90	228	246	290	465	632	680	2636	1760
127	9830	185.47	244	269	312	499	679	729	2636	1891
130	10300	194.34	264	293	333	536	729	784	2960	2028
132	10620	208.24	270	298	350	561	762	820		2123
137	11439	233.45	298	329	392	627	852	912	3309	2374
142	12289	261.47	333	383	436	698	949	1012	3685	2643
147	13170	297.67	377	419	485	774	1053	1124	4088	2932
152	14081	312.91	416	458	537	856	1164	1238	4520	3242
157	15023	349.37	450	499	591	943	1283	1360	4980	3572
162	15995	390.12	496	542	651	1036	1410	1490	5470	3925

Images for illustrative purposes only.

PRODUCT ETA MAY VERY ACCORDING TO SPECIFIC PROJECT PREMISES

Testing Load of Anchor Chain and Accessories

	Anchor Chain				
	Grade 2		Grade 3		
	PL	BL	PL	BL	
	KN	KN	KN	KN	
12.5	66	92	92	132	
14	82	116	116	165	
16	107	150	150	216	
17.5	127	179	179	256	
19	150	211	211	301	
20.5	175	244	244	349	
22	200	280	280	401	
24	237	332	332	476	
26	278	389	389	556	
28	321	449	449	642	
30	368	514	514	735	
32	417	583	583	833	
34	468	655	655	937	
36	523	732	732	1050	
38	581	812	812	1160	
40	640	896	896	1280	
42	703	981	981	1400	
44	769	1080	1080	1540	
46	837	1170	1170	1680	
48	908	1270	1270	1810	
50	981	1370	1370	1960	
52	1060	1480	1480	2110	
54	1140	1590	1590	2270	
56	1220	1710	1710	2430	
58	1290	1810	1810	2600	
60	1380	1940	1940	2770	
62	1470	2060	2060	2940	
64	1560	2190	2190	3130	
66	1660	2310	2310	3300	
68	1750	2450	2450	3500	
70	1840	2580	2580	3690	
73	1990	2790	2790	3990	
76	2150	3010	3010	4300	
78	2260	3160	3160	4500	
81	2410	3380	3380	4820	
84	2580	3610	3610	5160	
87	2750	3850	3850	5500	
90	2920	4090	4090	5840	
92	3040	4260	4260	6080	
95	3230	4510	4510	6440	
97	3340	4680	4680	6690	
100	3530	4940	4940	7060	
102	3660	5120	5120	7320	
105	3850	5390	5390	7700	
107	3980	5570	5570	7960	
111	4250	5940	5940	8480	
114	4440	6230	6230	8890	
117	4650	6510	6510	9300	
120	4850	6810	6810	9720	
122	5000	7000	7000	9990	
124	5140	7200	7200	10280	
127	5350	7490	7490	10710	
130	5570	7800	7800	11140	
132	5720	8000	8000	11420	
137	6080	8510	8510	12160	
142	6450	9030	9030	12910	
147	6840	9560	9560	13660	
152	7220	10100	10100	14430	
157	7600	10640	10640	15200	
162	7990	11180	11180	15980	
165					
168	load (kn)	Grade 2		Grade 3	
171					
175					
178	PI	0.0098bld ² (44-0.08d)		0.01373d ² (44-0.08d)	
180					
182					
185	BL	0.01373d ² (44-0.08d)		0.0196ld ² (44-0.08d)	
188					
191					
194					
197					

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PRODUCT ETA MAY VERY ACCORDING TO SPECIFIC PROJECT PREMISES

Testing Load of Anchor Chain and Accessories

Diameter Of Chain	Anchor Chain			
	Grade 2		Grade 3	
	PL	BL	PL	BL
	ibf	ibf	ibf	ibf
9/16	19300	27000	27000	38600
5/8	23700	33200	33200	47500
11/16	28600	40100	40100	57300
3/4	34000	47600	47600	68000
13/16	39800	55700	55700	79500
7/8	46000	64400	64400	91800
15/16	52600	73700	73700	105000
1	59700	83600	83600	119500
1 1/16	67200	94100	94100	135000
1 1/8	75000	105000	105000	150000
1 3/16	83400	116500	116500	167000
1 1/4	92200	129000	129000	184000
1 5/16	101500	142000	142000	203000
1 3/8	111000	155000	155000	222000
1 7/16	120500	169000	169000	241000
1 1/2	131000	183500	183500	262000
1 9/16	142000	198500	198500	284000
1 5/8	153000	214000	214000	306000
1 11/16	166500	229000	229000	327000
1 3/4	176000	247000	247000	352000
1 13/16	188500	264000	264000	377000
1 7/8	201000	281000	281000	402000
1 15/16	214000	299000	299000	427000
2	227000	318000	318000	454000
2 3/16	241000	337000	337000	482000
2 1/4	255000	357000	357000	510000
2 5/16	269000	377000	377000	538000
2 3/8	284000	396000	396000	570000
2 7/16	299000	418000	418000	598000
2 1/2	314000	440000	440000	628000
2 9/16	330000	462000	462000	660000
2 5/8	346000	484000	484000	692000
2 11/16	363000	507000	507000	726000
2 3/4	379000	530000	530000	758000
2 1/6	396000	554000	554000	792000
2 13/16	413000	578000	578000	826000
2 1/8	431000	603000	603000	861000
2 7/8	449000	628000	628000	897000
2 15/16	467000	654000	654000	934000

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PRODUCT ETA MAY VERY ACCORDING TO SPECIFIC PROJECT PREMISES

Testing Load of Anchor Chain and Accessories

Diameter Of Chain	Anchor Chain			
	Grade 2		Grade 3	
	PL	BL	PL	BL
Inch	lbf	lbf	lbf	lbf
3	485000	679000	679000	970000
3 1/16	504000	705000	705000	1008000
3 1/8	523000	732000	732000	1046000
3 3/16	542000	759000	759000	1084000
3 1/4	562000	787000	787000	1124000
3 5/16	582000	814000	814000	1163000
3 3/8	602000	843000	843000	1204000
3 7/16	622000	871000	871000	1244000
3 1/2	643000	900000	900000	1285000
3 9/16	664000	929000	929000	1327000
3 5/8	685000	958000	958000	1369000
3 3/4	728000	1019000	1019000	1455000
3 7/8	772000	1080000	1080000	1543000
3 15/16	794000	1111000	1111000	1587000
4	816000	1143000	1143000	1632000
4 1/8	862000	1207000	1207000	1724000
4 1/4	908000	1272000	1272000	1817000
4 3/8	956000	1338000	1338000	1911000
4 1/2	1004000	1405000	1405000	2008000
4 5/8	1053000	1474000	1474000	2105000
4 3/4	1102000	1543000	1543000	2204000
4 7/8	1153000	1613000	1613000	2305000
5	1203000	1685000	1685000	2407000
5 1/8	1255000	1757000	1757000	2509000
5 1/4	1306000	1829000	1829000	2613000
5 3/8	1359000	1903000	1903000	2718000
5 1/2	1412000	1977000	1977000	2824000
5 5/8	1466000	2052000	2052000	2932000
5 3/4	1520000	2128000	2128000	3039000
5 7/8	1573700	2203400	2203400	3147300
6	1629000	2280000	2280000	3257000
6 1/8	1684000	2357000	2357000	3367000
6 1/4	1738700	2434400	2434400	3477300
6 3/8	1795000	2512000	2512000	3589000
6 1/2	LOAD (kn)	Grade 2	Grade 3	
6 5/8				
6 3/4				
6 7/8				
7	PL	1422d (44-2.032d) ²	1991 d ² (44-2.032d)	
7 1/8				
7 1/4				
7 3/8				
7 1/2	BL	1991 d ² (44-2.032d)	2844 d ² (44-2.032d)	
7 5/8				
7 3/4				
7 7/8				

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PRODUCT ETA MAY VARY ACCORDING TO SPECIFIC PROJECT PREMISES

Testing Load of Anchor Chain and Accessories

Diameter of Chain	MOORING CHAIN													
	C/EL/E/SL		C/EL/E	SL	C/EL/E/SL	C/EL/E	SL	C/EL/E/SL	C/EL/E	SL	C/EL/E/SL	C/EL/E	SL	C/EL/E/SL
	RQ3		R3S				R4		R4S			R5		
	PL	BL	PL	PL	BL	PL	PL	BL	PL	PL	BL	PL	PL	BL
mm	KN	KN	KN	KN	KN	KN	KN	KN	KN	KN	KN	KN	KN	KN
50	1560	2230	1800	1740	2490	2160	1920	2740	2400	2130	3040	2510	2230	3200
52	1681	2403	1940	1875	2683	2327	2069	2952	2586	2295	3275	2704	2403	3448
54	1806	2581	2083	2014	2882	2500	2222	3171	2777	2465	3518	2905	2581	3703
56	1934	1764	2231	2157	3086	2677	2380	3396	2975	2640	3768	3111	2764	3966
58	2066	2953	2384	2304	3297	2860	2543	3628	3178	2821	4026	3324	2953	4238
60	2202	3147	2541	2456	3514	3049	2710	3867	3387	3006	4291	3543	3147	4516
62	2342	3347	2702	2612	3737	3242	2882	4112	3602	3197	4563	3767	3347	4803
64	2485	3552	2867	2771	3966	3440	3058	4364	3823	3393	4842	3998	3552	5097
66	2632	3762	3036	2935	4200	3644	3239	4622	4048	3593	5128	4234	3762	5398
68	2782	3977	3210	3103	4440	3852	3424	4886	4280	3798	5421	4476	3977	5706
70	2936	4196	3387	3274	4686	4065	3613	5156	4516	4008	5721	4723	4196	6022
73	3173	4535	3661	3539	5064	4393	3905	5572	4881	4332	6182	5105	4535	6508
76	3417	4885	3943	3812	5454	4731	4206	6002	5257	4666	6659	5498	4885	7009
78	3584	5124	4136	3998	5721	4963	4411	6295	5514	4894	6984	5767	5124	7352
81	3841	5490	4432	4284	6130	5318	4727	6746	5909	5244	7484	6179	5490	7878
84	4104	5866	4735	4578	6550	5682	5051	7208	6314	5603	7997	6603	5866	8418
87	4374	6252	5047	4879	6981	6056	5383	7682	6729	5972	8523	7037	6252	8972
90	4651	6648	5366	5187	7423	6439	5724	8168	7154	6350	9062	7482	6648	9539
92	4838	6916	5583	5397	7723	6699	5955	8498	7443	6606	9428	7785	6916	9924
95	5125	7326	5914	5717	8180	7096	6308	9002	7885	6998	9987	8246	7326	10513
97	5320	7604	6138	5934	8491	7366	6547	9343	8184	7263	10366	8559	7604	10912
100	5616	8028	6480	6264	8964	7776	6912	9864	8640	7668	10944	9036	8028	11520
102	5817	8316	6712	6489	9285	8055	7160	10217	8950	7943	11336	9360	8316	11933
105	6123	8753	7065	6830	9774	8478	7536	10755	9420	8361	11932	9852	8753	12560
107	6330	9049	7304	7061	10104	8765	7791	11118	9739	8643	12335	10185	9049	12985
111	6751	9650	7789	7530	10775	9347	8309	11857	10386	9217	13155	10862	9650	13847
114	7072	10109	8160	7888	11288	9792	8704	12421	10880	9656	13781	11378	10109	14506
117	7398	10575	8536	8251	11808	10243	9105	12993	11381	10101	14416	11903	10575	15174
120	7728	11047	8917	8620	12335	10700	9511	13573	11889	10552	15059	12434	11047	15852
122	7951	11365	9174	8868	12690	11008	9785	13964	12232	10856	15493	12792	11365	16309
124	8175	11686	9433	9118	13048	11319	10062	14358	12577	11162	15931	13153	11686	16769
127	8515	12172	9825	9498	13591	11790	10480	14956	13100	11626	16593	13700	12172	17466
130	8859	12663	10222	9881	14140	12266	10903	15559	13629	12095	17263	14253	12663	18171
132	9090	12994	10488	10139	14509	12586	11188	15965	13984	12411	17713	14625	12994	18646
137	9674	13829	11163	10791	15442	13395	11907	16992	14884	13209	18852	15566	13829	19845
142	10268	14677	11847	11452	16389	14217	12637	18034	15796	14019	20008	16520	14677	21061
147	10869	15536	12541	12123	17348	15049	13377	19089	16721	14840	21179	17487	15536	22294
152	11476	16405	13242	12800	18318	15890	14125	20157	17656	15669	22364	18465	16405	23541
157	12090	17282	13950	13485	19297	16740	14880	21235	18600	16507	23559	19452	17282	24799
162	12708	18166	14664	14175	20284	17596	15641	22321	19551	17352	24765	20447	18166	26068
165	13081	18699	15094	14590	20879	18112	16100	22976	20125	17861	25491	21047	18699	26833
168	13455	19234	15525	15008	21477	18631	16560	23633	20701	18372	26221	21649	19234	27601
171	13831	19771	15959	15427	22076	19150	17022	24292	21278	18884	26952	22253	19771	28371
175	14333	20488	16538	15986	22877	19845	17640	25174	22050	19569	27930	23061	20488	29400
178	14709	21027	16972	16407	23479	20367	18104	25836	22630	20084	28665	23667	21027	30173
180	14961	21387	17263	16687	23880	20715	18414	26278	23017	20428	29155	24072	21387	30689
182	LOAN (KN)		stud chain		stud chain		stud chain		stud chain		stud chain		stud chain	
185	PL		0.0156D ² (44-0.08D)		0.0180D ² (44-0.08D)		0.0216D ² (44-0.08D)		0.0240D ² (44-0.08D)		0.0251D ² (44-0.08D)		0.0251D ² (44-0.08D)	
188	BL		0.0223D ² (44-0.08D)		0.0249D ² (44-0.08D)		0.0274D ² (44-0.08D)		0.0304D ² (44-0.08D)		0.0320D ² (44-0.08D)		0.0320D ² (44-0.08D)	
191	LOAN (KN)		stud chain		stud chain		stud chain		stud chain		stud chain		stud chain	
194	PL		0.0156D ² (44-0.08D)		0.01743D ² (44-0.08D)		0.01918D ² (44-0.08D)		0.0213D ² (44-0.08D)		0.0223D ² (44-0.08D)		0.0223D ² (44-0.08D)	
197														
200	BL		0.0223D ² (44-0.08D)		0.0249D ² (44-0.08D)		0.0274D ² (44-0.08D)		0.0304D ² (44-0.08D)		0.0320D ² (44-0.08D)		0.0320D ² (44-0.08D)	

Testing Load of Anchor Chain and Accessories

Diameter of Chain	MOORING CHAIN													
	C/EL/E/SL		C/EL/E	SL	C/EL/E/SL	C/EL/E	SL	C/EL/E/SL	C/EL/E	SL	C/EL/E/SL	C/EL/E	SL	C/EL/E/SL
	RQ3		R3S				R4		R4S			R5		
	PL	BL	PL	PL	BL	PL	PL	BL	PL	PL	BL	PL	PL	BL
mm	lbf	lbf	lbf	lbf	lbf	lbf	lbf	lbf	lbf	lbf	lbf	lbf	lbf	lbf
1 3/8	176222	252101	203333	196867	281238	243454	216888	309829	271266	240805	343640	28731	252101	361714
1 7/16	19201	274691	221553	214507	306439	265269	236323	337592	295573	262383	374432	309155	274691	394126
1 1/2	208426	298172	240491	232843	332633	287944	256524	366449	320839	284811	406439	335582	298172	427816
1 9/16	225455	372534	260140	251868	359811	311471	277483	396390	347053	308082	439647	363000	322534	462770
1 5/8	243093	347767	280492	271573	387961	335838	299192	427401	374205	332185	474043	391400	347767	498975
1 11/16	261334	373863	301540	291951	417072	361039	321642	459472	402284	357111	509613	420769	373863	536417
1 3/4	280171	400811	323274	312994	447134	387062	344826	492591	431280	382851	546346	451098	400811	575081
1 13/16	299597	428601	345689	334696	478136	413899	368735	526745	461183	409396	584227	482375	428601	614955
1 7/8	319605	457225	368775	357048	510068	441541	393360	561923	491983	436737	623244	514589	457225	656024
1 15/16	340189	486671	392526	380043	542918	469978	418691	598112	523668	464864	663383	547731	486671	698274
2	361341	516932	416932	403674	576676	499200	444728	635302	556229	493769	704631	581788	516932	741692
2 1/16	383056	547997	441988	427932	611331	529200	471454	673481	589655	523442	746976	616750	547997	786264
2 1/8	405326	579856	467684	452811	646873	559966	498863	712635	623937	553874	790403	652607	579856	831975
2 3/16	428145	612500	494013	478303	683290	591491	526947	752755	659063	585055	834901	689347	612500	878813
2 1/4	451505	645920	520968	504400	720572	623764	555699	793827	695022	616977	880455	726959	645920	926763
2 5/16	475401	680105	548540	531096	758708	656776	585109	835840	731806	649631	927053	765433	680105	975812
2 3/8	499825	715046	576721	558381	797687	690519	615169	878782	769404	683006	974681	804758	715046	1025945
2 7/16	524771	750733	605505	586150	837499	724982	645872	922641	807804	717094	1023316	844923	750733	1077149
2 1/2	550232	787157	634883	614693	878133	760157	677208	967406	846997	751886	1072976	885917	787157	1129410
2 9/16	576201	824309	664847	643705	919578	796034	709170	1013064	886972	787373	1123617	927729	824309	1182715
2 5/8	602672	862177	695390	673276	961823	832603	741750	1059604	927720	823545	1175236	970349	862177	1237048
2 11/16	629637	900754	726504	703401	1004858	869857	774938	1107014	969229	860393	1227820	1013766	900754	1292398
2 3/4	657091	940029	758181	734071	1048672	907784	808727	1155282	1011489	897907	1281355	1057968	940029	1348749
2 13/16	685025	979992	790414	765278	1093254	946377	843108	1204397	1054491	936080	1335829	1102945	979992	1406088
2 7/8	713435	1020634	823191	797016	1138593	985625	878073	1254345	1098222	974901	1391229	1148686	1020634	1464401
2 15/16	742312	1061945	856514	829276	1184680	1025519	913614	1305116	1142674	1014361	1447540	1195181	1061945	1523675
3	771650	1103917	890365	862051	1231501	1066050	949723	1356698	1187836	1054452	1504751	1242418	1103917	1583895
3 1/16	801443	1146538	924742	895334	1279049	1107210	986391	1409079	1233697	1095163	1562848	1290386	1146538	1645048
3 1/8	831683	1189799	959934	929117	1327310	1148987	1023610	1462247	1280248	1136486	1621818	1339076	1189799	1707119
3 3/16	862364	1233692	995036	963393	1376275	1191374	1061371	1516190	1327477	1178412	1681648	1388475	1233692	1770096
3 1/4	893480	1278205	1030938	998153	1425933	1234361	1099667	1570897	1375374	1220931	1742325	1438573	1278205	1833963
3 5/16	925023	1323330	1067334	1033392	1476274	1277938	1138489	1626355	1423929	1264034	1803835	1489360	1323330	1898709
3 3/8	956986	1369057	1104215	1069100	1527285	1322096	1177829	1682552	1473132	1307712	1866165	1540824	1369057	1964317
3 7/16	989364	1415376	1141573	1105271	1578958	1366826	1217678	1739478	1522973	1351955	1929303	1592954	1415376	2030776
3 1/2	1022149	1462278	1179402	1141896	1631280	1412119	1258029	1797119	1573440	1396755	1993234	1645740	1462278	2098070
3 9/16	1055334	1509752	1217693	1178969	1684242	1457965	1298872	1855465	1624523	1442103	2057947	1699171	1509752	2166187

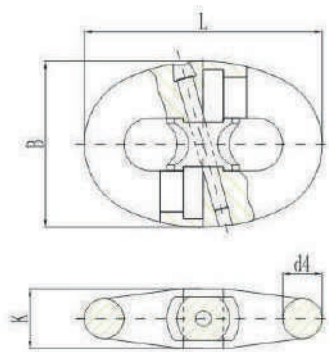
PRODUCT ETA MAY VERY ACCORDING TO SPECIFIC PROJECT PREMISES

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Testing Load of Anchor Chain and Accessories

Diameter of Chain	MOORING CHAIN														
	C/EL/E/SL		C/EL/E	SL	C/EL/E/SL	C/EL/E	SL	C/EL/E/SL	C/EL/E	SL	C/EL/E/SL	C/EL/E	SL	C/EL/E/SL	
	RQ3		R35				R4		R4S			R5			
	PL	BL	PL	PL	BL	PL	PL	BL	PL	PL	BL	PL	PL	BL	
mm	lbf	lbf	lbf	lbf	lbf	lbf	lbf	lbf	lbf	lbf	lbf	lbf	lbf	lbf	
3 5/8	1088913	1557790	1256438	1216482	1737832	1504356	1340200	1914503	1676213	1487988	2123428	1753236	1557790	2235111	
3 3/4	1157226	1655518	1335260	1292798	1846854	1598731	1424277	2034609	1781370	1581337	2256641	1863225	1655518	2375330	
3 7/8	1227033	1755383	1415807	1370783	1958261	1695171	1510194	2157342	1888827	1676727	2392767	1975620	1755383	2518617	
3 15/16	1262480	1806093	1456707	1410383	2014832	1744142	1553821	2219664	1943392	1725165	2461890	2032692	1806093	2591375	
4	1298280	1857309	1198015	1450377	2071967	1793600	1597883	2282608	1998501	1774086	2531703	2090334	1857309	2664860	
4 1/8	1370914	1961219	1581824	1531521	2187886	1893946	1687279	2410311	2110310	1873340	2673342	2207280	1961219	2813949	
4 1/4	1444881	2067035	1667170	1614153	2305932	1996133	1778315	2540358	2224171	1974415	2817581	2326373	2067035	2965774	
4 3/8	1520126	2174681	1753992	1698214	2426019	2100086	1870925	2672653	2340000	2077237	2964313	2447524	2174681	3120223	
4 1/2	1596597	2284079	1842227	1783643	2548061	2205732	1965042	2807102	2457714	2181733	3113434	2570648	2284079	3277188	
4 5/8	1674239	2395153	1931814	1870381	2671972	2312996	2060602	2943610	2577232	2287830	3264839	2695657	2395153	3436556	
4 3/4	1752998	2507825	2022690	1958367	2797667	2421803	2157536	3082083	2698470	2395454	3418423	2822466	2507825	3598218	
4 7/8	1832820	2622019	2114793	2047541	2925058	2532079	2255779	3222425	2821344	2504530	3574080	2950986	2622019	3762062	
5	1913652	2737656	2208060	2137842	3054060	2643750	2355264	3364542	2945772	2614986	3731706	3081132	2737656	3927978	
5 1/8	1995440	2854661	2302431	2229112	3184588	2756742	2455926	3508340	3071672	2726749	3891196	3212817	2854661	4095857	
5 1/4	2078130	2972957	2397842	2321589	3316555	2870979	2557698	3653723	3198960	2839743	4052445	3212817	2972957	4265586	
5 3/8	2161667	3092465	2494232	2414913	3449876	2986388	2660514	3800597	3327553	2953896	4215347	3480456	3092465	4437056	
5 1/2	2245999	3213109	2591537	2509125	3584463	3102894	2764306	3948867	3457369	3069135	4379797	3616237	3213109	4610156	
5 5/8	2331071	3334812	2689697	2604163	3720232	3220423	2869010	4098439	3588324	3185385	4545691	3753210	3334812	4784775	
5 3/4	2416829	3457497	2788649	2699968	3857097	3338900	2974559	4249217	3720336	3302572	4712924	3891287	3457497	4960803	
5 7/8	2503220	3581087	2888331	2796480	3994971	3458250	3080886	4401108	3853321	3420625	4881389	4030383	3581087	5138130	
6	2590190	3705505	2988680	2893638	4133768	3578400	3187925	4554015	3987197	3539468	5050984	4170411	3705505	5316644	
6 1/8	2677684	3830674	3089635	2991382	4273403	3699276	3295611	4707846	4221881	3659027	5221601	4311284	3830674	5496235	
6 1/4	2765649	3956516	3191133	3089653	4413790	3820801	3403875	4862504	4257290	3779231	5393137	4452915	3956516	5676793	
6 3/8	2854031	4082955	3293113	3188389	4554842	3942903	3512654	5017896	4393340	3900004	5565486	4595217	4082955	5858208	
6 1/2	2942776	4209913	3395511	3287531	4696473	4065506	3621878	5173926	4529950	4021274	5738543	4738104	4209913	6040367	
6 5/8	3031831	4337314	3498266	3387019	4838598	4188537	3731484	5330500	4667036	4142966	5912204	4881489	4337314	6223161	
6 3/4	3121141	4465081	3601316	3486792	4981131	4311921	3841404	5487523	4804515	4265007	6086363	5025258	4465081	6406480	
6 7/8	3210653	4593135	3704599	3586790	5123986	4435583	3951573	5644901	4942305	4387324	6260915	5169406	4593135	6590213	
7	3300312	4721402	3808053	3686954	5267077	4559450	4061923	5802538	5080322	4509843	6435755	5313765	4721402	6774248	
7 1/8	Stud Links Of Mooring Chain														US Units
7 1/4	(lbs)	R3				R35		R4			R4S			R5	
7 3/8	PL	2262d ⁴ (44-2.032d)				2610d ⁴ (44-2.032d)		3125d ⁴ (44-2.032d)			3482d ⁴ (44-2.032d)			3642d ⁴ (44-2.032d)	
7 1/2	BL	3236d ⁴ (44-2.032d)				3610d ⁴ (44-2.032d)		3977d ⁴ (44-2.032d)			4411d ⁴ (44-2.032d)			4643d ⁴ (44-2.032d)	
7 5/8	Studless Links														
7 3/4	(lbs)	R3				R35		R4			R4S			R5S	
7 3/4	PL	2262d (44-2.032d)				2610d (44-2.032d)		3125d ⁴ (44-2.032d)			3482d ⁴ (44-2.032d)			3642d ⁴ (44-2.032d)	
7 7/8	BL	3236d ⁴ (44-2.032d)				3610d ⁴ (44-2.032d)		3977d ⁴ (44-2.032d)			4411d ⁴ (44-2.032d)			4643d ⁴ (44-2.032d)	

Kenter Shackle



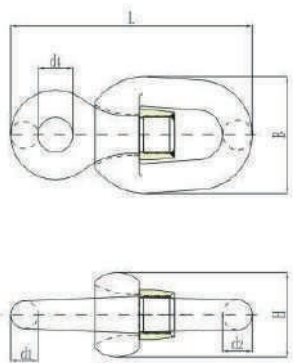
d= nominal diameter of common link (mm)

d	d4	B	K	L	d	d4	B	K	L
50	50	210	76	300	97	97	407	147	582
52	52	218	79	312	100	100	420	152	600
54	54	227	82	324	102	102	428	155	612
56	56	235	85	336	105	105	441	160	630
58	58	244	88	348	107	107	449	163	642
60	60	252	91	360	111	111	466	169	666
62	62	260	94	372	114	114	479	173	684
64	64	269	97	384	117	117	491	178	702
66	66	277	100	396	120	120	504	182	720
68	68	286	103	408	122	122	512	185	732
70	70	294	106	420	124	124	521	188	744
73	73	307	111	438	127	127	533	193	762
76	76	319	115	456	130	130	546	198	780
78	78	328	119	468	132	132	554	201	792
81	81	340	123	486	137	137	575	208	822
84	84	353	128	504	142	142	596	216	852
87	87	365	132	522	147	147	617	223	882
90	90	378	137	540	152	152	638	231	912
92	92	386	140	552	157	157	659	239	942
95	95	399	140	570	162	162	680	246	972

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Offshore Mooring Chain Accessories



d= diagonal diameter of common link (mm)

d	d1	d2	B	d4	H	L	d	d1	d2	B	d4	H	L
12.5	14	15	59	18	43	121	70	77	84	329	98	238	679
14	15	17	66	20	48	136	73	80	88	343	102	248	708
16	18	19	75	22	54	155	76	84	91	357	106	258	737
17.5	19	21	82	25	60	170	78	86	94	367	109	265	757
19	21	23	89	27	65	184	81	89	97	381	113	275	786
20.5	23	25	96	29	70	199	84	92	101	395	118	286	815
22	24	26	103	31	75	213	87	96	104	409	122	296	844
24	26	29	113	34	82	233	90	99	108	423	126	306	873
26	29	31	122	36	88	252	92	101	110	432	129	313	892
28	31	34	132	39	95	272	95	105	114	447	133	323	922
30	33	36	141	42	102	291	97	107	116	456	136	330	941
32	35	38	150	45	109	310	100	110	120	470	140	340	970
34	37	41	160	48	116	330	102	112	122	479	143	347	989
36	40	43	169	50	122	349	105	116	126	494	147	357	1019
38	42	46	179	53	129	369	107	118	128	503	150	364	1038
40	44	48	188	56	136	388	111	122	133	522	155	377	1077
42	46	50	197	59	143	407	114	125	137	536	160	388	1106
44	48	53	207	62	150	427	117	129	140	550	164	398	1135
46	51	55	216	64	156	446	120	132	144	564	168	408	1164
48	53	58	226	67	163	466	122	134	146	573	171	415	1183
50	55	60	235	70	170	485	124	136	149	583	174	422	1203
52	57	62	244	73	177	504	127	140	152	597	178	432	1232
54	59	65	254	76	184	524	130	143	156	611	182	442	1261
56	62	67	263	78	190	543	132	145	158	620	185	449	1280
58	64	70	273	81	197	563	137	151	164	644	192	466	1329
60	66	72	282	84	204	582	142	156	170	667	199	483	1377
62	68	74	291	87	211	601	147	162	176	691	206	500	1426
64	70	77	301	90	218	621	152	167	182	714	213	517	1474
66	73	79	310	92	224	640	157	173	188	738	220	534	1523
68	75	82	320	95	231	660	162	178	194	761	227	551	1571

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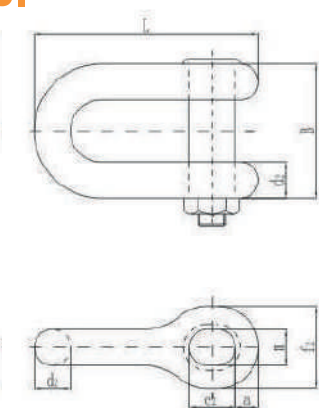
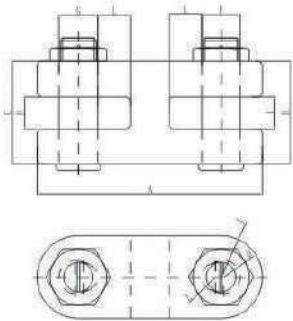
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Offshore Mooring Chain Accessories

Offshore Mooring Chain Accessories

MHLI

MDOI



d= diagonal diameter of common link (mm)

d= diagonal diameter of common link (mm)

d	A	B	C	D	E	F	G	H	I	J	L
50	410	188	188	30	25	70	70	58	58	75	60
52	426	195	195	31	26	73	73	60	60	78	62
54	443	203	203	32	27	76	76	62	62	81	65
56	459	210	210	34	28	78	78	64	64	84	67
58	476	218	218	35	29	81	81	67	67	87	70
50	492	225	225	36	30	84	84	69	69	90	72
62	508	233	233	37	31	87	87	71	71	93	74
64	525	240	240	38	32	90	90	74	74	96	77
64	541	248	248	40	33	92	92	76	76	99	79
68	558	255	255	41	34	95	95	78	78	102	82
70	574	263	263	42	35	98	98	81	81	105	84
73	599	274	274	44	37	102	102	84	84	110	88
76	623	285	285	46	38	106	106	878	87	114	91
78	640	293	293	47	39	109	109	90	90	117	94
81	664	304	304	49	41	113	113	93	93	122	97
84	689	315	315	50	42	118	118	97	97	126	101
87	713	326	326	52	44	122	122	100	100	131	104
90	738	338	338	54	45	126	126	104	104	135	108
92	754	345	345	55	46	129	129	106	106	138	110
95	779	356	356	57	48	133	133	109	109	143	114
97	795	364	364	58	49	136	136	112	112	146	116
100	820	375	375	60	50	140	140	115	115	150	120
102	836	383	383	61	51	143	143	117	117	153	122
105	861	394	394	63	53	147	147	121	121	158	128
107	877	401	401	64	54	150	150	123	123	161	128
111	910	416	416	67	56	155	155	128	128	167	133
114	935	428	428	68	57	160	160	131	131	171	137
117	959	439	439	70	59	164	164	135	135	176	140
120	984	450	450	72	60	168	168	138	138	180	144
122	1000	458	458	73	61	171	171	140	140	183	146
124	1017	465	465	74	62	174	174	143	143	186	149
127	1041	476	476	76	64	178	178	146	146	191	152
130	1066	488	488	78	65	182	182	150	150	195	156
132	1082	495	495	79	66	185	185	152	152	198	158
137	1123	514	514	82	69	192	192	158	158	206	164
142	1164	533	533	85	71	199	199	163	163	213	170
147	1205	551	551	88	74	206	206	169	169	221	176
152	1246	570	570	91	76	213	213	175	175	228	182
157	1287	589	589	94	79	220	220	181	181	236	188
162	1328	608	608	97	81	227	227	186	186	243	194

d	d2	a	B	e2	f2	L	m	d	d2	a	B	e2	f2	L	m
50	70	45	260	90	155	435	70	97	136	87	504	175	301	844	136
52	73	47	270	94	161	452	73	100	140	90	520	180	310	870	140
54	76	49	281	97	167	470	76	102	143	92	530	184	316	887	143
56	78	50	291	101	174	487	78	105	147	95	546	189	326	914	147
58	81	52	302	104	180	505	81	107	150	96	556	193	332	931	150
60	84	54	312	108	186	522	84	111	155	100	577	200	344	966	155
62	87	56	322	112	192	539	87	114	160	103	593	205	353	992	160
64	90	58	333	115	198	557	90	117	164	105	608	211	363	1018	164
66	92	59	343	119	205	574	92	120	168	108	624	216	372	1044	168
68	95	61	354	122	211	592	95	122	171	110	634	220	378	1061	171
70	98	63	364	126	217	609	98	124	174	112	645	223	384	1079	174
73	102	66	380	131	226	635	102	127	178	114	660	229	394	1105	178
76	106	68	395	137	236	661	106	130	182	117	676	234	403	1131	182
78	109	70	406	140	242	679	109	132	185	119	686	238	409	1148	185
81	113	73	421	146	251	705	113	137	192	123	712	247	425	1192	192
84	118	76	437	151	260	731	118	142	199	128	738	256	440	1235	199
87	122	78	452	157	270	757	122	147	206	132	764	265	456	1279	206
90	126	81	468	162	279	783	126	152	213	137	790	274	471	1322	213
92	129	83	478	166	285	800	129	157	220	141	816	283	487	1366	220
95	133	86	494	171	295	827	133	162	227	146	842	292	502	1409	227

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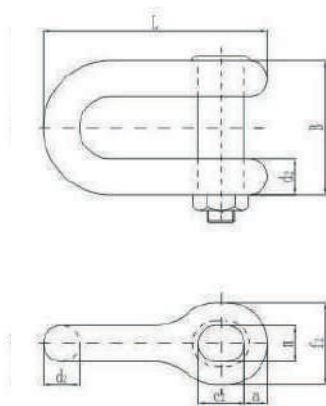
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Offshore Mooring Chain Accessories

MD01



d= diagonal diameter of common link (mm)

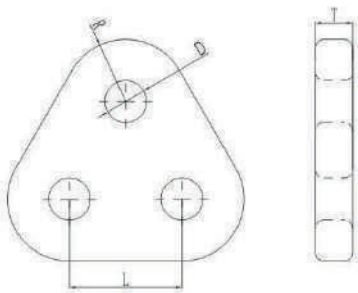
d	d2	a	B	e2	f2	L	m	d	d2	a	B	e2	f2	L	m
50	70	45	260	90	155	435	70	97	136	87	504	175	301	844	136
52	73	47	270	94	161	452	73	100	140	90	520	180	310	870	140
54	76	49	281	97	167	470	76	102	143	92	530	184	316	887	143
56	78	50	291	101	174	487	78	105	147	95	546	189	326	914	147
58	81	52	302	104	180	505	81	107	150	96	556	193	332	931	150
60	84	54	312	108	186	522	84	111	155	100	577	200	344	966	155
62	87	56	322	112	192	539	87	114	160	103	593	205	353	992	160
64	90	58	333	115	198	557	90	117	164	105	608	211	363	1018	164
66	92	59	343	119	205	574	92	120	168	108	624	216	372	1044	168
68	95	61	354	122	211	592	95	122	171	110	634	220	378	1061	171
70	98	63	364	126	217	609	98	124	174	112	645	223	384	1079	174
73	102	66	380	131	226	635	102	127	178	114	660	229	394	1105	178
76	106	68	395	137	236	661	106	130	182	117	676	234	403	1131	182
78	109	70	406	140	242	679	109	132	185	119	686	238	409	1148	185
81	113	73	421	146	251	705	113	137	192	123	712	247	425	1192	192
84	118	76	437	151	260	731	118	142	199	128	738	256	440	1235	199
87	122	78	452	157	270	757	122	147	206	132	764	265	456	1279	206
90	126	81	468	162	279	783	126	152	213	137	790	274	471	1322	213
92	129	83	478	166	285	800	129	157	220	141	816	283	487	1366	220
95	133	86	494	171	295	827	133	162	227	146	842	292	502	1409	227

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ODUCT ETA MAY VERY ACCORDING TO SPECIFIC PROJECT PREMISES

Triagle Plate Straight Type

MP01



d=nominal diameter of common (mm)

	D	L	R	T	d	D	L	R	T
50	73	195	108	65	97	141	378	209	126
52	75	203	112	68	100	145	390	215	130
54	78	211	116	70	102	148	398	219	133
56	81	218	120	73	105	152	410	226	137
58	84	226	125	75	107	155	417	230	139
60	87	234	129	78	111	161	433	239	144
62	90	242	133	81	114	165	445	245	148
64	93	250	138	83	117	170	456	252	152
66	96	257	142	86	120	174	468	258	156
68	99	265	146	88	122	177	476	262	159
70	102	273	151	91	124	180	484	267	161
73	106	285	157	95	127	184	495	273	165
76	110	296	163	99	130	189	507	280	169
78	113	304	168	101	132	191	515	284	172
81	117	316	174	105	137	199	534	295	178
84	122	328	181	109	142	206	554	305	185
87	126	339	187	113	147	213	573	316	191
90	131	351	194	117	152	220	593	327	198
92	133	359	198	120	157	228	612	338	204
95	138	371	204	124	162	235	632	348	211

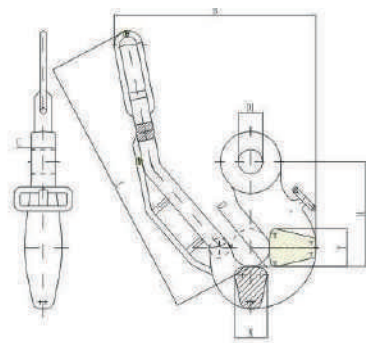
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Hook

MHKI



PRODUCT ETA MAY VERY ACCORDING TO SPECIFIC PROJECT PREMISES

Size	L	B	H	C	D	DI
KS 40	1415	1106	578	130	200	135
KS 50	1397	946	588	163	180	170

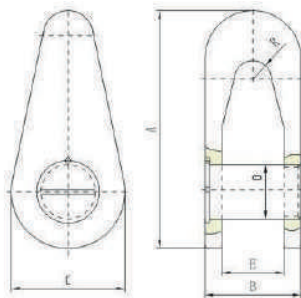
(mm)

Size	T	M	Material	PL(kN)	BL(kN)
KS 40	200	170	SAE4340	7096	9002
KS 50	245	200	SAE4340	10700	13573

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Rope Shackle Link

ML01



PRODUCT ETA MAY VERY ACCORDING TO SPECIFIC PROJECT PREMISES

Size	A	B	C	D	E	R	Material	PL(kN)	BL(kN)
120T	324	142	150	75	90	28	R4	686	1176
180T	350	184	160	85	120	30	R4	931	1764
300T	447	216	190	110	146	36	R4	980	2940

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Montevideo, Uruguay.

LOQUEN

30t

77M