

SHACKLE



SHACKLE 사용시 주의사항

❖ 일반사항

- 샤클은 와이어 로프, 체인 또는 다른 부속들과 연결하여 들어올리거나 고정시키는데 사용된다.
- 샤클의 안전사용하중(SWL/WLL)보다 높은 하중에서 사용해서는 안 된다.
- 스크류 핀 샤클은 비영구적인 곳에, 볼트/너트 샤클은 장기간 또는 영구적인 곳에 사용한다.
- 체인 샤클은 주로 one-leg에 사용되며, 양카 샤클은 multi-leg에 사용된다.
- 스크류 핀 샤클은 핀이 바디에 정확하게 조립되어야 하며, 이를 위해 적절한 공구를 사용하여도 된다.
- 샤클에 표시되어 있는 사용하중(SWL/WLL)은 샤클의 중심선에 정지된 하중이 걸리는 상태에서의 하중이며, 충격하중, 동하중, 과하중, 축하중 등은 피하여야 한다.
- 산성용액 등의 화학용액에 담그거나 증기에 노출되면 샤클에 나쁜 영향을 미치므로 피하여야 한다.
- 변형 또는 마모량이 원래 수치의 5%를 초과하는 제품은 즉시 가해진 하중을 제거하고, 새 것으로 교체해야 한다.

❖ 사용 전 주의사항

- 개인보호장구(안전화, 장갑, 헬멧 등)를 착용하여야 하며, 작업장소는 항상 밝은 곳이어야 한다.
- 작업 전에는 주변의 위험요소를 제거하여 작업자의 안전을 확보하여야 한다.
- 제품의 규격이나 사용조건 및 사용방법 등을 확인하여, 적합한 제품을 적합한 방법으로 사용하여야 한다.
- 제품에 유해한 결함이나 마모, 변형여부 등을 검사하여, 안전이 확보된 제품만을 사용하여야 한다.

❖ 사용 중 주의사항

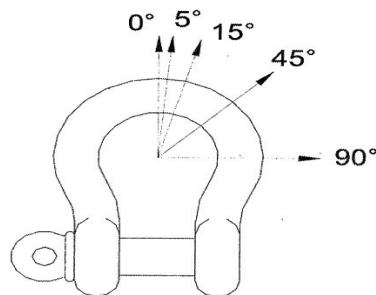
- 잘못된 방법으로 사용해서는 결코 안 된다. (과적 및 잘못된 사용으로 인하여 상해를 입을 수 있다.)
- 15kg이 넘는 제품을 사용할 때는 반드시 설비를 이용하여야 한다.(지게차, 크레인, 호이스트 등)
- 사용 중에는 반드시 위험반경 밖에 위치하여야 한다.(물건의 낙하 등에 의해 상해를 입을 수 있다.)
- 용접, 열처리, 가열, 구부림 등의 방법으로 수리, 개조, 재가공 또는 변형한 제품을 사용해서는 안 된다.
- 제품의 측면에 하중이나 충격을 가하면 제품의 변형, 파괴 등을 유발할 수 있다.

❖ 사용 후 주의사항

- 제품을 사용한 후에는 제품의 변형, 마모, 결함 등을 검사하고, 이상의 발견 시에는 즉시 폐기한다.
- 제품에 이상이 발견된 경우에는 제품에 가해지는 하중, 사용환경, 오염여부 등을 확인한다.

❖ 축하중이 걸리는 상태에서의 사용하중 조정

수직으로부터의 각도	조정된 사용하중
~5°	SWL의 100%
6~15°	SWL의 85%
16~45°	SWL의 70%
46~90°	SWL의 50%
90~	사용불가



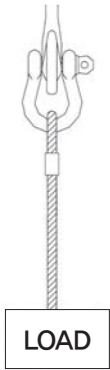
- 축하중이 걸리는 상황은 피해야 하지만, 부득이하게 축하중이 걸리는 경우에는 사용하중을 조정한다.
- 축하중은 체인 샤클에는 적용할 수 없으며, 양카 샤클에만 적용할 수 있다.

❖ Multi-leg상황에서의 사용

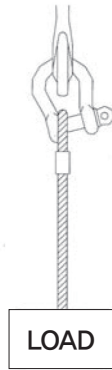
- 두 개의 sling leg를 사용하는 경우에는 반드시 양카 샤클을 사용하여야 하며, 샤클 바디에 각각의 sling leg가 조립되도록 하여야 한다.
- Sling-leg간의 각도는 120° 를 초과할 수 없다.
- Multi-leg를 사용하는 경우에는 무게중심을 확인하여 편하중이 걸리지않아야 한다.

SHACKLE 사용시 주의사항

❖ 샤클의 올바른 사용을 위하여 아래의 그림을 참조할 것



[올바른 사용]



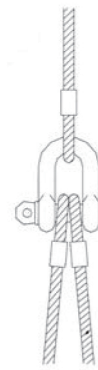
[잘못된 사용]



[올바른 사용]



[잘못된 사용]



[올바른 사용]



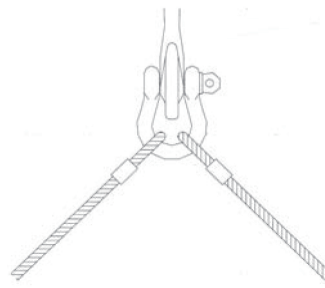
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[올바른 사용]



[잘못된 사용]

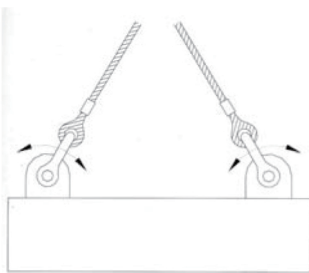


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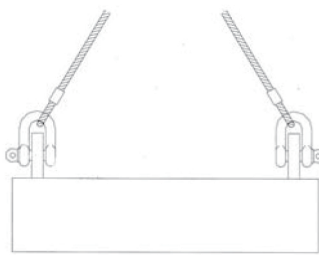


[잘못된 사용]

- 샤클 핀이 회전하거나 움직일 수 있는 환경은 피하여야 한다.
- 부득이하게 사용할 경우에는 볼트/너트 샤클을 사용하여야 한다.

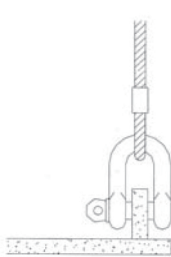


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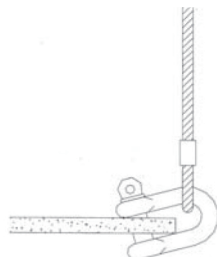


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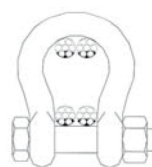
- 체인 샤클에 가해지는 하중은 샤클의 중심에 하중이 걸리도록 올바르게 사용하여야 한다. 과하중이 걸리거나 하중이 샤클의 중심선에서 벗어나 굴절되어서는 안 된다.



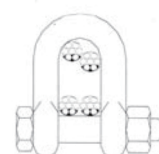
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[올바른 사용]



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CROSBY® ROUND PIN SHACKLES



G-209/S-209

G-209 Screw pin anchor shackles meet the performance requirements of Federal Specification RR-C-271G Type IVA, Grade A, Class 2, except for those provisions required of the contractor. For additional information, see page 475.



G-210/S-210

G-210 Screw pin anchor shackles meet the performance requirements of Federal Specification RR-C-271G Type IVA, Grade A, Class 2, except for those provisions required of the contractor. For additional information, see page 452.

- Capacities 1/3 thru 55 metric tons, grade 6.
- Forged - Quenched and Tempered, with alloy pins.
- Working Load Limit and grade "6" permanently shown on every shackle.
- Hot Dip galvanized or self colored.
- Sizes 3/8 inch and below are mechanically galvanized.
- Fatigue rated.
- Shackles 25t and larger are RFID EQUIPPED.
- Shackles can be furnished proof tested with certificates to designated standards, such as ABS, DNV, Lloyds, or other certification. Proof testing and certification available when requested at the time of order, charges will apply.
- Approved for use at -40° C (-40° F) to 204° C (400° F).
- All 209 and 210 shackles can meet charpy requirements of 42 Joules (31 ft•lbf) avg. at -20° C (-4° F) upon special request.
- Meets or exceeds all requirements of ASME B30.26.
- Type Approval certification in accordance with ABS 2016 Steel Vessel Rules and ABS Guide for Certification of Lifting Appliances available. Certificates available when requested at time of order and may include additional charges.
- Look for the Red Pin®... the mark of genuine Crosby quality.

Load Rated Fatigue Rated



QUIC-CHECK®



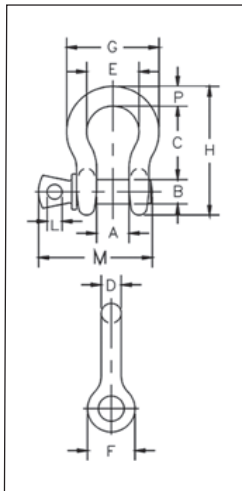
MAXTOUGH



SEE APPLICATION INFORMATION

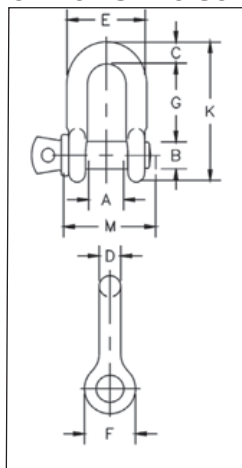
On Page 92 of the General Catalog
Para Español: www.thecrosbygroup.com

G-209 / S-209 Screw Pin Anchor Shackles



Nominal Size (in)	Working Load Limit (t)*	Stock No.		Weight Each (kg)	Dimensions (mm)													Tolerance + / -	
		G-209	S-209		A	B	C	D	E	F	G	H	L	M	P	C	A		
3/16	1/3	1018357	-	.03	9.65	6.35	22.4	4.85	15.2	14.2	24.9	37.3	4.06	28.4	4.85	1.50	1.50		
1/4	1/2	1018375	1018384	.05	11.9	7.85	28.7	6.35	19.8	15.5	32.5	46.7	4.85	35.1	6.35	1.50	1.50		
5/16	3/4	1018393	1018400	.09	13.5	9.65	31.0	7.85	21.3	19.1	37.3	53.0	5.60	42.2	7.85	3.30	1.50		
3/8	1	1018419	1018428	.14	16.8	11.2	36.6	9.65	26.2	23.1	45.2	63.0	6.35	51.5	9.65	3.30	1.50		
7/16	1-1/2	1018437	1018446	.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	2	1018455	1018464	.33	20.6	16.0	47.8	12.7	33.3	30.2	58.5	83.5	9.65	68.5	12.7	3.30	1.50		
5/8	3-1/4	1018473	1018482	.62	26.9	19.1	60.5	16.0	42.9	38.1	74.5	106	11.2	85.0	17.5	6.35	1.50		
3/4	4-3/4	1018491	1018507	1.07	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	6-1/2	1018516	1018525	1.64	36.6	25.4	84.0	22.4	58.0	53.0	102	148	12.7	114	24.6	6.35	1.50		
1	8-1/2	1018534	1018543	2.28	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	9-1/2	1018552	1018561	3.36	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	12	1018570	1018589	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	13-1/2	1018598	1018605	6.14	57.0	38.1	133	36.1	92.0	84.0	162	233	19.1	174	38.1	6.35	3.30		
1-1/2	17	1018614	1018623	7.80	60.5	41.4	146	39.1	98.5	92.0	175	254	20.6	187	41.1	6.35	3.30		
1-3/4	25	1018632	1018641	12.6	73.0	51.0	178	46.7	127	106	225	313	25.4	231	57.0	6.35	3.30		
2	35	1018650	1018669	20.4	82.5	57.0	197	53.0	146	122	253	348	31.0	263	61.0	6.35	3.30		
2-1/2	55	1018678	1018687	38.9	105	70.0	267	69.0	184	145	327	453	35.1	330	79.5	6.35	6.35		

G-210 / S-210 Screw Pin Chain Shackles



Nominal Size (in)	Working Load Limit (t)*	Stock No.		Weight Each (kg)	Dimensions (mm)											Tolerance + / -	
		G-210	S-210		A	B	C	D	E	F	G	K	L	M	G	A	
1/4	1/2	1019150	1019169	.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	3/4	1019178	1019187	.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	1019196	1019203	.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	1-1/2	1019212	1019221	.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	1019230	1019249	.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	3-1/4	1019258	1019267	.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	4-3/4	1019276	1019285	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	6-1/2	1019294	1019301	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	8-1/2	1019310	1019329	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	9-1/2	1019338	1019347	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	1019356	1019365	4.11	51.5	35.1	35.1	31.8	115	76.0	100	191	17.5	156	6.35	1.50	
1-3/8	13-1/2	1019374	1019383	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	1019392	1019409	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	1019418	1019427	12.1	73.0	51.0	54.0	44.5	162	106	146	279	25.4	231	6.35	3.30	
2	35	1019436	1019445	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	1019454	1019463	32.5	105	70.0	66.5	66.5	238	145	203	377	35.1	330	6.35	6.35	

* NOTE: Maximum Proof Load is 2 times the Working Load Limit. Minimum Ultimate Strength is 6 times the Working Load Limit. For Working Load Limit reduction due to side loading applications, see page 94.

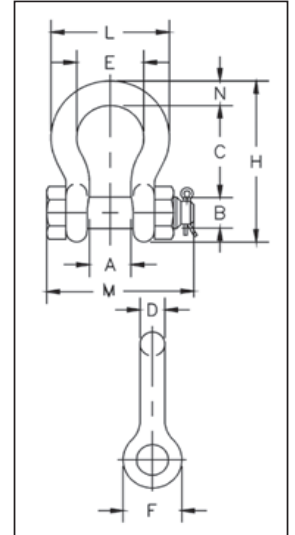
CROSBY® ROUND PIN SHACKLES



G-2130 / S-2130

Bolt Type Anchor shackles with thin head bolt - nut with cotter pin. Meets the performance requirements of Federal Specification RR-C 271G Type IVA, Grade A, Class 3, except for those provisions required of the contractor. For additional information, see page 475.

- Capacities 1/3 thru 150 metric tons, grade 6.
- Working Load Limit and grade "6" permanently shown on every shackle.
- Forged - Quenched and Tempered, with alloy bolts.
- Hot Dip galvanized or self colored. (85, 120, and 150 metric ton shackles are all hot dip galvanized bows and the bolts are Dimetcoated® and painted red)
- Sizes 3/8 and below are mechanically galvanized.
- Fatigue rated (1/3t - 55t).
- Shackles 25t and larger are **RFID EQUIPPED**.
- Approved for use at -40° C (-40° F) to 204° C (400° F).
- Meets or exceeds all requirements of ASME B30.26.
- Shackles 85 metric tons and larger are individually proof tested to 2.0 times the working load limit.
- Type Approval certification in accordance with ABS 2016 Steel Vessel Rules ABS Guide for Certification of Lifting Appliances available. Certificates available when requested at time of order and may include additional charges.
- 3.1 Certification as standard available for charpy and statistical proof test from 3.25t up to 25 tons to DNV2.7-1 and EN13889.
- Crosby 3.25t through 25t G2130OC anchor shackles are type approved to DNV Certification Notes 2.7-1- Offshore Containers. These Crosby shackles are statistical proof and impact tested to 42 Joules (31 ft•lbf) min. avg. at -20° C (-4° F). The tests are conducted by Crosby and 3.1 test certification is available upon request. Refer to page 87 for Crosby COLD TUFF® shackles that meet the additional requirements of DNV rules for certification of lifting applications - Loose Gear.
- All other 2130 shackles can meet charpy requirements of 42 Joules (31 ft•lbf) avg at -20° C (-4° F) when requested at time of order.
- Look for the Red Pin® . . . the mark of genuine Crosby quality.



SEE APPLICATION INFORMATION
On Page 92 of the General Catalog
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G-2130 / S-2130 Bolt Type Anchor Shackles

Nominal Size (in)	Working Load Limit (t)*	Stock No.			Weight Each (kg)	Dimensions (mm)										Tolerance +/-	
		G-2130	S-2130	G-2130OC		A	B	C	D	E	F	H	L	M	N	C	A
3/16	1/3 ±	1019464	—	—	.03	9.65	6.35	22.4	4.85	15.2	14.2	37.3	24.9	32.8	4.85	1.50	1.50
1/4	1/2	1019466	—	—	.05	11.9	7.85	28.7	6.35	19.8	15.5	46.7	32.5	39.6	6.35	1.50	1.50
5/16	3/4	1019468	—	—	.10	13.5	9.65	31.0	7.85	21.3	19.1	53.0	37.3	46.2	7.85	1.50	1.50
3/8	1	1019470	—	—	.15	16.8	11.2	36.6	9.65	26.2	23.1	63.0	45.2	55.1	9.65	3.30	1.50
7/16	1-1/2	1019471	—	—	.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	1019472	1019481	—	.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	3-1/4	1019490	1019506	1262013	.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	4-3/4	1019515	1019524	1262022	1.23	31.8	22.4	71.5	19.1	51.0	46.0	126	89.0	105	20.6	6.35	1.50
7/8	6-1/2	1019533	1019542	1262031	1.79	36.6	25.4	84.0	22.4	58.0	53.0	148	102	122	24.6	6.35	1.50
1	8-1/2	1019551	1019560	1262040	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	9-1/2	1019579	1019588	1262059	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	1019597	1019604	1262068	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	13-1/2	1019613	1019622	1262077	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	1019631	1019640	1262086	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	1019659	1019668	1262095	15.4	73.0	51.0	178	44.5	127	106	313	225	246	57.0	6.35	3.30
2	35	1019677	1019686	—	23.7	82.5	57.0	197	51.0	146	122	348	253	275	61.0	6.35	3.30
2-1/2	55	1019695	1019702	—	44.6	105	70.0	267	66.5	184	145	453	327	345	79.5	6.35	6.35
3	† 85	1019711	—	—	70	127	82.5	330	76.0	200	165	546	365	384	92.0	6.35	6.35
3-1/2	† 120 ±	1019739	—	—	120	133	95.5	372	92.0	229	203	626	419	432	105	6.35	6.35
4	† 150 ±	1019757	—	—	153	140	108	368	104	254	229	653	468	451	116	6.35	6.35

* NOTE: Maximum Proof Load is 2 times the Working Load Limit. Minimum Ultimate Strength is 6 times the Working Load Limit. For Working Load Limit reduction due to side loading applications, see page 94. † Individually Proof Tested with certification. ± Furnished in Anchor style only and furnished with eyebolts for handling.

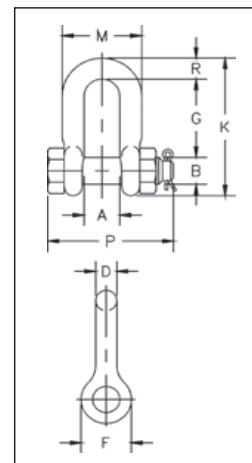
CROSBY® ROUND PIN SHACKLES



G-2150 / S-2150

Bolt Type chain shackles with thin hex head bolt - nut with cotter pin. Meets the performance requirements of Federal Specification RR-C 271G, Type IVA, Grade A, Class 3, except for those provisions required of the contractor. For additional information, see page 475.

- Capacities 1/2 thru 85 metric tons, grade 6.
- Working Load Limit and grade "6" permanently shown on every shackle.
- Forged — Quenched and Tempered, with alloy pins.
- Hot Dip galvanized or self colored. (85, 120, and 150-metric ton shackles are all hot dip galvanized bows and the bolts are Dimetcoated® and painted red).
- Sizes 3/8 inch and below are mechanically galvanized.
- Fatigue rated (1/2t - 55t).
- Shackles 25t and larger are **RFID EQUIPPED**.
- Approved for use at -40° C (-40 degrees F) to 204° C (400° F).
- Meets or exceeds all requirements of ASME B30.26.
- Sizes 1/2 - 25t meet the performance requirements of EN13889:2003.
- Shackles 55 metric tons and smaller can be furnished proof tested with certificate to designated standards, such as ABS, DNV, Lloyds, or other certification when requested at time of order.
- Type Approval certification in accordance with ABS 2016 Steel Vessel Rules and 2016 ABS Guide for Certification of Lifting Appliance available. Certificates available when requested at time of order and may include additional charges.
- All 2150 shackles can meet charpy requirements of 42 Joules (31 ft•lbf) avg at -20° C (-4° F) upon special request.
- Look for the Red Pin® . . . the mark of genuine Crosby quality.



SEE APPLICATION INFORMATION

On Page 92 of the General Catalog
Para Español: www.thecrosbygroup.com

G-2150 / S-2150 Bolt Type Chain Shackles

Nominal Size (in)	Working Load Limit (t)*	Stock No.		Weight Each (kg)	Dimensions (mm)										Tolerance + / -	
		G-2150	S-2150		A	B	D	F	G	K	M	P	R	G	A	
1/4	1/2	1019768	—	.06	11.9	7.85	6.35	15.5	19.1	40.4	24.6	39.6	6.35	1.50	1.50	
5/16	3/4	1019770	—	.10	13.5	9.65	7.85	19.1	25.4	48.5	29.5	46.2	7.85	1.50	1.50	
3/8	1	1019772	—	.15	16.8	11.2	9.65	23.1	31.0	58.5	35.8	55.0	9.65	3.30	1.50	
7/16	1-1/2	1019774	—	.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	1019775	1019784	.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	3-1/4	1019793	1019800	.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	4-3/4	1019819	1019828	1.14	31.8	22.4	19.1	46.0	60.5	115	70.0	103	20.6	6.35	1.50	
7/8	6-1/2	1019837	1019846	1.74	36.6	25.4	22.4	53.0	71.5	135	81.0	120	24.6	6.35	1.50	
1	8-1/2	1019855	1019864	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	9-1/2	1019873	1019882	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	1019891	1019908	4.90	51.5	35.1	31.8	76.0	100	191	115	165	35.1	6.35	1.50	
1-3/8	13-1/2	1019917	1019926	6.24	57.0	38.1	35.1	84.0	111	210	127	183	38.1	6.35	3.30	
1-1/2	17	1019935	1019944	8.39	60.5	41.4	38.1	92.0	122	230	137	196	41.1	6.35	3.30	
1-3/4	25	1019953	1019962	14.2	73.0	51.0	44.5	106	146	279	162	230	54.0	6.35	3.30	
2	35	1019971	1019980	21.2	82.5	57.0	51.0	122	172	312	184	264	60.0	6.35	3.30	
2-1/2	55	1019999	1020004	38.6	105	70.0	66.5	145	203	377	238	344	66.5	6.35	6.35	
3	† 85	1020013	—	56	127	82.5	76.0	165	216	429	279	419	89.0	6.35	6.35	

* NOTE: Maximum Proof Load is 2. times the Working Load Limit. Minimum Ultimate Strength is 6 times the Working Load Limit. For Working Load Limit reduction due to side loading applications, see page 94. † Individually Proof Tested with certification

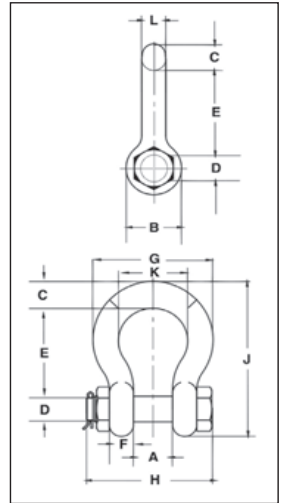
CROSBY® ROUND PIN SHACKLES



G-2140 / S-2140

G-2140 meets the performance requirements of Federal Specification RR-C-271F, Type IVA, Grade B, Class 3, except for those provisions required of the contractor. For additional information, see page 475.

- Quenched and Tempered.
- Alloy bows, Alloy bolts.
- Forged Alloy Steel 2 thru 200 metric tons. Cast Alloy Steel 250 thru 400 metric tons. Meets performance requirements of Grade 8 shackles.
- Working Load Limit is permanently shown on every shackle.
- 30, 40, 55, and 85 metric ton shackle bows are available galvanized or self colored with bolts that are galvanized and painted red.
- Sizes 3/8 inch and below are mechanically galvanized.
- 120, 150, 175 metric ton shackle bows are hot-dip galvanized; bolts are Dimetcoated and painted red.
- 400 metric ton shackle bows are Dimetcoated; bolts are Dimetcoated and painted red.
- Sizes 1-1/2 and larger are **RFID EQUIPPED**.
- Approved for use at -40° C (-40° F) to 204° C (400° F).
- Shackles are Quenched and Tempered and can meet DNV impact requirements of 42 Joules (31 ft•lbf) at -20° C (-4° F).
- All sizes are individually proof tested to 2.0 times the Working Load Limit.
- Refer to page 87 for Crosby COLD TUFF® shackles that meet the additional requirements of DNV rules for certification of lifting applications - Loose Gea .
- Shackles 200 metric tons and larger are provided as follows.
 - Serialized bolt and bow
 - Material certification (chemical)
 - Magnetic particle inspected.
 - Certification must be requested at time of order .
- Meets or exceeds all requirements of ASME B30.26 including identification, ductility , design factor, proof load and temperature requirements. 2140 shackles meet other critical performance requirements including impact properties and material traceability, not addressed by ASME B30.26.
- Type Approval certification in accordance with ABS 2016 Steel Vessel Rules and 2016 ABS Guide for Certification of Lifting Appliances available. Certificates available when requested at time of order and may include additional charges.
- Look for the Red Pin® . . . the mark of genuine Crosby quality.



Load Rated



QUIC-CHECK®



SEE APPLICATION INFORMATION

On Page 92 of the General Catalog
Para Español: www.thecrosbygroup.com

G-2140 / S-2140 Crosby® Alloy Bolt Type Anchor Shackles

Nominal Shackle Size (in)	Working Load Limit (t)*	Stock No.			Weight Each (kg)	Dimensions (mm)											Tolerance + / -	
		G-2140	S-2140	G-2140OC		A	B	C	D +/- .5	E	F	G	H	J	K	L	A	E
3/8	2	1021015	-	-	0.15	16.8	23.1	9.7	11.2	36.6	9.7	45.2	55.1	63.2	26.2	9.7	1.5	3.3
7/16	2 2/3	1021020	-	-	0.22	19.1	26.9	11.2	12.7	42.9	10.4	51.6	63.8	73.9	29.5	11.2	1.5	3.3
1/2	3 1/3	1021029	-	-	0.36	20.6	30.2	12.7	16.3	47.8	11.7	58.7	71.1	83.3	33.3	12.7	1.5	3.3
5/8	5	1021038	-	-	0.76	26.9	38.1	17.5	19.6	60.5	14.7	74.7	90.4	106.4	42.9	16.0	1.5	3.3
3/4	7	1021047	-	-	1.23	31.8	46.0	20.6	22.6	71.4	17.5	88.9	105.4	126.2	50.8	19.1	1.5	6.4
7/8	9 1/2	1021056	-	-	1.79	36.6	53.1	24.6	25.9	84.1	20.6	102.4	122.4	148.1	57.9	22.4	1.5	6.4
1	12 1/2	1021065	-	-	2.57	42.9	60.5	26.9	29.2	95.3	23.4	119.1	136.9	166.6	68.3	25.4	1.5	6.4
1 1/8	15	1021074	-	-	3.75	46.0	68.3	31.8	31.8	108.0	26.4	131.1	149.9	189.7	73.9	28.7	1.5	6.4
1 1/4	18	1021083	-	-	5.31	51.6	76.2	35.1	35.6	119.1	29.5	146.1	169.9	209.6	82.6	32.8	1.5	6.4
1 3/8	21	1021092	-	-	7.18	57.2	84.1	38.1	38.9	133.4	32.5	162.1	183.1	232.7	92.2	36.1	3.3	6.4
1-1/2	30	1021110	1021129	1262407	8.52	60.5	91.9	41.1	41.4	146	35.3	175	196	254	98.6	38.9	3.3	6.4
1-3/4	40	1021138	1021147	1262416	15.4	73.2	106	57.2	50.8	178	44.5	224	237	313	127	46.7	3.3	6.4
2	55	1021156	1021165	1262425	23.6	82.6	122	61.0	57.2	197	50.8	258	264	347	146	52.8	3.3	6.4
2-1/2	85	1021174	1021183	1262434	43.5	105	148	79.2	69.9	267	66.5	324	345	455	184	68.8	6.4	6.4
3	120	1021192	-	1262443	81	127	165	92.2	82.6	330	76.2	371	384	546	200	79.2	6.4	6.4
3-1/2	† 150	1021218	-	1262452	120	133	203	111	95.3	372	95.3	432	448	632	229	91.9	6.4	6.4
4	† 175	1021236	-	1262461	153	140	229	116	108	368	102	457	517	652	254	102	6.4	6.4
4 3/4	† 200	1021234	-	-	209	184	267	127	121	386	116	529	611	706	279	121	6.35	6.35
5	† 250	1021243	-	-	276	216	305	143	127	470	123	600	632	828	330	127	4.0	1.80
6	† 300	1021252	-	-	362	213	330	154	152	475	124	629	666	871	330	149	4.0	1.80
7**	† 400	1021478	-	-	500	210	356	184	178	572	165	660	728	1022	330	152	6.4	6.4

* Note: Maximum Proof Load is 2 times the Working Load Limit. Minimum Ultimate Load is 4.5 times the Working Load Limit on 2 thru 21 metric tons. For sizes 30 thru 175 metric tons, Minimum Ultimate Load is 5.4 times the Working Load Limit for 200 thru 400 metric tons, Minimum Ultimate Load is 4 times the Working Load Limit. ** Cast Alloy Steel.
† Furnished with Round Head Bolts with an handle for handling. For Working Load Limit reduction due to side loading applications, see page 94.

STANDARD SHACKLES

❖ 샤클 B.C(G-209, G-4161)



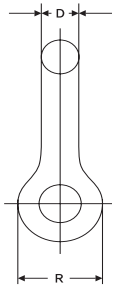
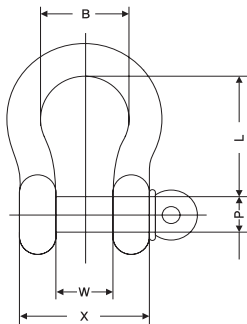
고급품

- 재 질 : 탄소강 단강품(Body), 합금강 단강품(Pin)
- 시험하중 : 보증하중 = 사용하중 × 2, 파단하중 = 사용하중 × 6
- 표면처리 : Body(윤증아연도금)
- 참고규격 : Federal specification, RR-C-271D
- 기 타 : 고객의 요구가 있을 경우에는 비파괴검사(NDT), 검사기관의 검사품을 공급할 수 있다.

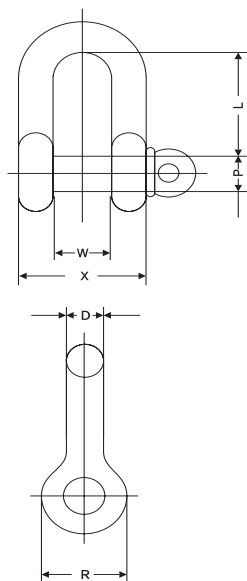
보급품

- 재 질 : 탄소강 단강품
- 시험하중 : 보증하중 = 사용하중 × 1.5, 파단하중 = 사용하중 × 4
- 표면처리 : 전기아연도금
- 기 타 : 고객의 요구가 있을 경우에는 비파괴검사(NDT), 검사기관의 검사품을 공급할 수 있다.

❖ 샤클 S.C(G-210, G-4151)



규격 (inch)	사용하중 (ton)	치수(mm)							무게 (kg)
		B	D	L	P	R	W	X	
5/16	0.75	20	8	32	10	20	13.5	29.5	0.1
3/8	1	24	10	36	12	24	17	37	0.1
1/2	2	34	13	48	16	30	21	47	0.3
5/8	3.25	43	16	60	19	40	27	59	0.6
3/4	4.75	51	19	73	22	48	32	70	1
7/8	6.5	58	22	85	25	54	37	81	1.5
1	8.5	68	25	95	28	58	43	94	2.2
1-1/8	9.5	74	28	109	32	67	46	103	3.2
1-1/4	12	83	32	119	35	76	51	115	4.3
1-3/8	13.5	92	35	134	38	84	57	127	5.9
1-1/2	17	98	38	146	42	92	60	136	7.7
1-3/4	25	127	45	177	50	109	73	163	14.2
2	35	146	51	197	58	127	83	185	20.3



규격 (inch)	사용하중 (ton)	치수(mm)						무게 (kg)
		D	L	P	R	W	X	
1/2	2	13	42	16	30	21	47	0.3
5/8	3.25	16	51	19	40	27	59	0.5
3/4	4.75	19	60	22	48	32	70	0.9
7/8	6.5	22	71	25	54	37	81	1.4
1	8.5	25	82	28	60	43	94	2
1-1/8	9.5	28	92	32	67	46	103	2.8
1-1/4	12	32	99	35	76	51	115	3.9
1-1/2	17	38	121	42	92	60	136	7
1-3/4	25	45	146	50	109	73	163	12.5
2	35	51	162	58	127	83	185	17.8

STANDARD SHACKLES

❖ 샤클 B.B(G-2130, G-4163)

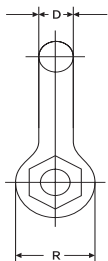
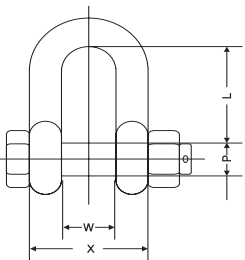
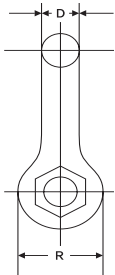
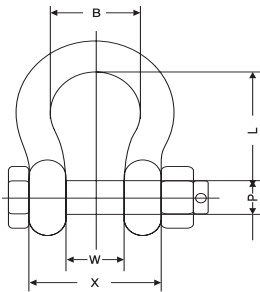


고급품

- 재 질 : 탄소강 단강품(Body), 합금강 단강품(Pin)
- 시험하중 : 보증하중 = 사용하중 × 2, 파단하중 = 사용하중 × 6
- 표면처리 : Body(윤증아연도금)
- 참고규격 : Federal specification, RR-C-271D
- 기 타 : 고객의 요구가 있을 경우에는 비파괴검사(NDT), 검사기관의 검사품을 공급할 수 있다.

보급품

- 재 질 : 탄소강 단강품
- 시험하중 : 보증하중 = 사용하중 × 1.5, 파단하중 = 사용하중 × 4
- 표면처리 : 전기아연도금
- 기 타 : 고객의 요구가 있을 경우에는 비파괴검사(NDT), 검사기관의 검사품을 공급할 수 있다.



규격 (inch)	사용하중 (ton)	치수(mm)							무게 (kg)
		B	D	L	P	R	W	X	
1/2	2	34	13	48	16	30	21	47	0.4
5/8	3.25	43	16	60	19	40	27	59	0.7
3/4	4.75	51	19	73	22	48	32	70	1.1
7/8	6.5	58	22	85	25	54	37	81	1.8
1	8.5	68	25	95	28	58	43	94	2.6
1-1/8	9.5	74	28	109	32	67	46	103	3.8
1-1/4	12	83	32	119	35	76	51	115	5
1-3/8	13.5	92	35	134	38	84	57	127	6.8
1-1/2	17	98	38	146	42	92	60	136	8.4
1-3/4	25	127	45	177	50	109	73	163	14.9
2	35	146	51	197	58	127	83	185	22.6
2-1/2	55	184	69	267	70	150	105	253	46.4
3	85	200	79	330	83	168	128	292	79
3-1/2	120	229	92	372	95	203	133	324	120
4	150	254	102	368	108	229	140	344	150

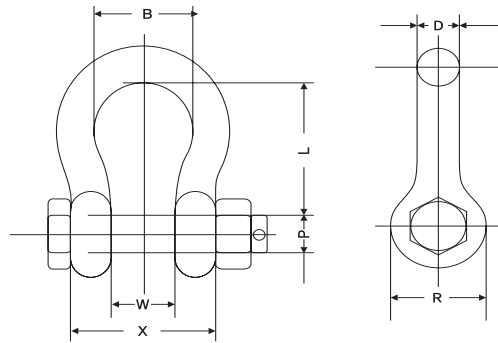
규격 (inch)	사용하중 (ton)	치수(mm)						무게 (kg)
		D	L	P	R	W	X	
1/2	2	13	42	16	30	21	47	0.4
5/8	3.25	16	51	19	40	27	59	0.6
3/4	4.75	19	60	22	48	32	70	1
7/8	6.5	22	71	25	54	37	81	1.7
1	8.5	25	82	28	60	43	94	2.3
1-1/8	9.5	28	92	32	67	46	103	3.4
1-1/4	12	32	99	35	76	51	115	4.5
1-1/2	17	38	121	42	92	60	136	7.8
1-3/4	25	45	146	50	109	73	163	13.7
2	35	51	162	58	127	83	185	20

❖ 샤클 S.B(G-2150, G-4153)



STANDARD SHACKLES

❖ 알로이 샤클 B.B (G-2140, G-5263)

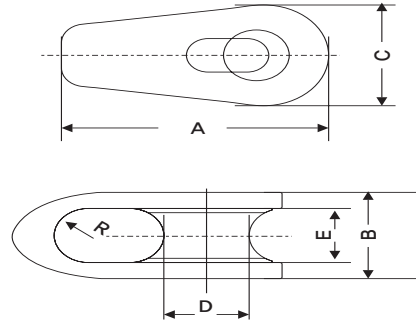
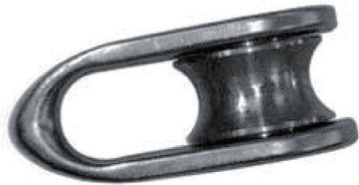


규격 (inch)	사용하중 (ton)	치수(mm)							무게 (kg)
		B	D	L	P	R	W	X	
1-1/2	30	98	38	146	42	92	60	136	8.4
1-3/4	40	127	45	177	50	109	73	163	14.9
2	55	146	51	197	58	127	83	185	22.6
2-1/2	85	184	69	267	70	150	105	253	46.4
3	120	200	79	330	83	168	128	292	79
3-1/2	150	229	92	372	95	203	133	324	120
4	175	254	102	368	108	229	140	344	150

- 재 질 : 합금강 단강품(ALLOY STEEL body & Boit)
- 시험하중 : 보증하중 = 사용하중 × 2, 파단하중 = 사용하중 × 5.4
- 표면처리 : Body(용융아연도금)
- 참고규격 : Federal specification, RR-C-271D
- 기 타 : 고객의 요구가 있을 경우에는 비파괴검사(NDT), 검사기관의 검사품을 공급할 수 있다.

FAIRLED, MOORING SHACKLE

❖ FAIRLED SHACKLE(MANDAL TYPE) 페어리드 샤클

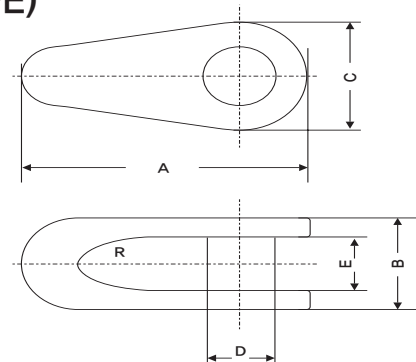
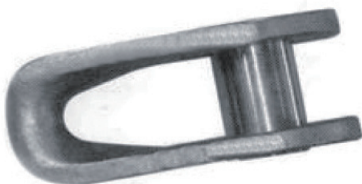


제품사양

규격	치수(mm)						사용하중 (ton)	무게 (kg)
	A	B	C	D	E	R		
70ton	240	106	115	72	62	33	25	10.0
90ton	255	108	126	85	67	34	30	11.5
120ton	310	137	140	87	90	48	40	17.4
165ton	366	165	160	110	110	56	55	30.6
180ton	401	174	160	110	114	58	60	39.0

- 재 질 : 스테인리스강 주강품(Cast stainless steel)
- 파단하중 : Breaking load = SWL × 3
- 고객의 요구가 있을 경우에는 비파괴검사, 검사기관의 검사품을 공급할 수 있다.
- 고객의 요구가 있을 경우에는 선급(ABS, DNV, LLOYD'S, KR 등) 검사품을 공급할 수 있다.

❖ MOORING SHACKLE(TONSBURG TYPE) 무어링 샤클



제품사양

규격	치수(mm)						사용하중 (ton)	무게 (kg)
	A	B	C	D	E	R		
90ton	285.0	115	136.0	65.0	75.0	22.0	30.0	11.2
120ton	325.0	142	150.0	75.0	90.0	28.0	40.0	17.0
180ton	350.0	184	160.0	85.0	120.0	30.0	60.0	27.0

- 재 질 : 주강품(Cast steel)
- 파단하중 : Breaking load = SWL × 3
- 표면처리 : Body : 용융아연도금(Hot-dip galvanized)
Pin : 전기아연도금(Electric plated)
- 고객의 요구가 있을 경우에는 비파괴검사, 검사기관의 검사품을 공급할 수 있다.
- 고객의 요구가 있을 경우에는 선급(ABS, DNV, LLOYD'S, KR 등) 검사품을 공급할 수 있다.