

# Hooks & Swivels





S-320N

# Hoist Hooks 319, 320, 322, 316

What It Takes To Be

## “Crosby Or Equal”



S-319N

DESIGN	COMPETITION	CROSBY
<p>The theoretical reserve capability of a hoist hook should be a minimum of 5 to 1 for carbon eye hooks, alloy eye hooks and carbon shank hooks and 4.5 to 1 for alloy shank hooks. Known as the DESIGN FACTOR, it is usually computed by dividing the catalog ultimate load by the working load limit. The ultimate load is the average load or force at which the product fails or no longer supports the load. The working load limit is the maximum mass or force which the product is authorized to support in general service. The design factor is generally expressed as a ratio such as 5 to 1. Also important to the design of hooks is the selection of proper steel.</p>	<p><b>Ask:</b> <i>What is the design factor?</i></p> <p><b>Ask:</b> <i>Is each production lot performance tested?</i></p>	<p>Crosby hoist hooks meet the design factor requirements of 5 to 1 for all carbon hooks, 5 to 1 for all alloy eye and swivel hooks and 4.5 to 1 for alloy shank hooks. Crosby's QC1400 program determines the mechanical properties of each manufacturing lot of hoist hooks. In addition to the heat treat process, Crosby hooks are designed with a cross section that, when overloaded, allows uniform deformation and straightening before ultimate failure.</p>
<p><b>QUENCHED AND TEMPERED</b></p> <p>Quenching and tempering assures the uniformity of performance and maximizes the properties of the steel. This means that each hook meets its rated strength and other properties. This quenching and tempering process develops a tough material that reduces the risk of a brittle, catastrophic failure, thus improving impact and fatigue properties. As a result, if overloaded, the hook will deform before ultimate failure occurs, thus giving warning. The requirements of your job demand this reliability and consistency. Quench and Tempering insures that not only is the working load limit met, but that ductility, fatigue and impact properties are appropriate.</p>	<p><b>Ask:</b> <i>Are their hooks quenched and tempered?</i></p> <p><b>Ask:</b> <i>If overloaded, do their hooks deform, giving warning before ultimate failure?</i></p> <p>Some competitors normalize the hooks, and as a result, desired properties are not achieved. A few even provide hooks in an "as forged" condition, which can result in brittle failure.</p>	<p>Crosby hoist hooks are quenched and tempered. This heat treatment process assures a hook that will deform prior to ultimate failure. Impact and fatigue properties are superior with quenched and tempered hooks. Crosby's Quenched and Tempered carbon and alloy hoist hooks are recommended for all critical applications, including overhead lifting.</p> 
<p><b>FULL LINE AND IDENTIFICATION</b></p> <p>The proper application of hoist hooks requires that the correct type, size, and working load capacity of hook be used. All hooks must be load rated (with either the working load or a cross reference code). In addition the traceability code, size, and manufacturer's name should be boldly marked on the product. Availability of a full line of eye, shank, and swivel hooks in carbon and alloy steel is essential when selecting the desired hook for the proper application.</p>	<p><b>Ask:</b> <i>Do they have a traceability system?</i></p> <p><b>Ask:</b> <i>Does their traceability system tie into a comprehensive material testing program?</i></p> <p><b>Ask:</b> <i>Does their product offering cover the full range?</i></p> <p>Most competitors do not have the full line of hooks that Crosby produces. Most do not have a traceability system.</p>	<p>Crosby forges "Crosby" or "CG," the Product Identification Code (P.I.C.), and working load limit (or working load cross reference code) into its full line. Crosby's traceability system and P.I.C. are an integral part of the QC1400 program.</p> 
<p><b>APPLICATION INFORMATION</b></p> <p>Detailed application information will assist you in the proper selection and use of hoist hooks. This information is most effective when provided in supporting brochures and engineering information. A formal application and warning system that attracts the attention of the user, clearly informs the user of the factors involved in the task, and informs the user of the proper application procedures is needed.</p>	<p><b>Ask:</b> <i>Do they provide hook application and warning information attached directly to the hook?</i></p> <p><b>Ask:</b> <i>What training support is provided?</i></p> <p>Most competitors do not have a comparable product warnings system and application information for hoist hooks.</p>	<p>The Crosby Product Warnings System provides detailed application and warning information for hoist hooks. In addition, a video on hook maintenance is also available. Field inspection criteria and repair instructions are also available. Training seminars conducted by Crosby provide training on the proper use of hoist hooks. Crosby training packets, supplied free to attendees of Crosby's seminars, provide training materials needed to explain the proper use of hoist hooks.</p>



Remember, "When buying Crosby, you're buying more than product, you're buying Quality."

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# Crosby Value Added

- **U.S. ratings:** When comparing to other hooks which are rated in short tons, the design factor of Crosby hooks (in short tons) is 5 to 1 for all carbon hooks, 5 to 1 for alloy eye and swivel, 4.5 to 1 for alloy shank hooks and 4 to 1 for all bronze hooks.
- **Application information:** Application and warning information is available for Crosby hoist hooks. The Crosby Warning System is designed to attract the attention of the user, clearly inform the user of the factors involved in the task, and provide the user with proper application procedures. Each Crosby hoist hook is tagged with appropriate application and warning information, thus insuring that the information is available at the point of application.
- **Charpy impact properties:** Crosby's quenched and tempered hooks have enhanced impact properties for greater toughness at all temperatures. Crosby can provide typical Charpy impact properties on selected sizes upon special request at the time of order.
- **Fatigue properties:** Typical fatigue properties are available for selected sizes. In addition, these properties will be provided upon special request for other sizes. Crosby is in the process of fatigue rating hoist hooks to 20,000 cycles at 1-1/2 times the *Working Load Limit*.
- **Ductility properties:** Crosby's QC 1400 program provides results of actual test values for ductility of the material. These results are measured by reduction of area and elongation. This is done for each production lot and is traceable by the Product Identification Code (PIC).
- **Tensile strengths:** Crosby's QC 1400 program provides hardness, tensile, and yield strength for each production lot of hoist hooks. They are traceable by the Product Identification Code (PIC).
- **Material Analysis:** Crosby can provide certified material (mill) analysis for each production lot, traceable by the Product Identification Code (PIC). Crosby, through its own laboratory, verifies the analysis of each heat of steel. Crosby purchases only *special bar* forging quality steel with specific cleanliness requirements and guaranteed hardenability.
- **Field inspection:** Written instructions for visual, magnaflux, and dye penetrant inspection of hooks are available from Crosby. In addition, acceptance criteria and repair procedures for hooks are available.
- **Proof testing:** If requested at the time of order, hooks can be furnished proof tested with certification. All SHUR-LOC<sup>®</sup> hooks (S-316A) are 100% proof tested with certificates.
- **Mag Certification:** If requested at the time of order, hooks can be Mag inspected with certification.
- **World Class Certification:** Certification to World Class Standards can be furnished upon request at the time of order. Specific standards include American Bureau of Shipping, Lloyds Register of Shipping, Det Norske Veritas, American Petroleum Institute, RINA, Nuclear Regulatory Commission, and other world wide standards.
- **Bronze Hooks:** Crosby provides bronze shank hooks for non-sparking applications.
- **QUIC-CHECK<sup>®</sup>:** Hoist hooks incorporate markings forged into the product which address two (2) QUIC-CHECK<sup>®</sup> features: *Deformation Indicators:* Two strategically placed marks, one just below the shank or eye and the other on the hook tip, which allows for a QUIC-CHECK<sup>®</sup> measurement to determine if the throat opening has changed, thus indicating abuse or overload. *Angle Indicators:* Indicates the maximum included angle which is allowed between two (2) sling legs in the hook. These indicators also provide the opportunity to approximate other included angles between two sling legs.



320N



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322N



319



319N



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# Crosby® Shank Hooks



**SEE APPLICATION AND WARNING INFORMATION**

On Pages 112 - 113

## S-319 / S-319N



Patented trademark indicates QUIC-CHECK® product.

Hook ID Codes: A-Alloy Steel,  
B-Bronze High Strength,  
C-Carbon Steel.

- Hoist hooks incorporate markings forged into the product which address two (2) QUIC-CHECK® features.
  - Deformation Indicators -- Two strategically placed marks, one just below the shank or eye and the other on the hook up, which allows for a QUIC-CHECK® measurement to determine if the throat opening has changed, thus indicating abuse or overload.
  - To check, use a measuring device (i.e. tape measure) to measure the distance between the marks. The marks should align according to the dimensions in column "AA" on next page. If the measurement does not meet this criteria, the hook should be inspected further for possible damage.
  - Angle Indicators -- Indicates the maximum included angle which is allow between two (2) sling legs in the hook. These indicators also provide the opportunity to approximate other included angles between two sling legs.

Working Load Limit (t)*			Hook ID Code	Shank Hooks Stock No.			Shank Length ‡	Weight Each (kg)	Rep. Latch Kits		
Carbon	Alloy	Bronze		Carbon S-319CN	Alloy S-319AN	Bronze S-319BN			S-4320 Stock No.	PL Stock No.	SS-4055 Stock No.
3/4	1.25	.5	D †	1028505	1028701	1028900	Std.	.23	1096325	-	-
1	1.6	.6	F †	1028514	1028710	1028909	Std.	.34	1096374	-	-
1.6	2.5	1	G †	1028523	1028723	1028918	Std.	.45	1096421	-	-
2	3.2	1.4	H †	1028532	1028732	1028927	Std.	.83	1096468	-	-
3.2	5.4	2	I †	1028541	1028741	1028936	Std.	1.67	1096515	-	-
5	8	3.5	J †	1028550	1028750	1028945	Std.	3.29	1096562	-	-
7-1/2	11.5	5	K †	1028563	1028765	1028954	Std.	6.12	1096609	-	-
10	16	6.5	L †	1028572	1028774	1028963	Std.	8.16	1096657	-	-
15	22	10	N †	1028581	1028783	1028972	Std.	16.0	1096704	-	-
20	30	-	O	1024386	1024803	-	Std.	32.7	-	1093716	1090161
20	30	-	O	1024402	1024821	-	Long	38.8	-	1093716	1090161
25	37	-	P	1024420	1024849	-	Std.	61	-	1093717	1090189
25	37	-	P	1024448	1024867	-	Long	78	-	1093717	1090189
30	45	-	S	1024466	1024885	-	Std.	83	-	1093718	1090189
30	45	-	S	1024484	1024901	-	Long	97	-	1093718	1090189
40	60	-	T	1024509	1024929	-	Std.	122	-	1093719	1090205
40	60	-	T	1024545	1024965	-	Long	142	-	1093719	1090205
50	75	-	U	1024563	1024983	-	Std.	177	-	1093720	-
50	75	-	U	1024581	1025009	-	Long	193	-	1093720	-
-	100	-	W	-	1025027	-	Std.	277	-	1093721	-
-	100	-	W	-	1025045	-	Long	306	-	1093721	-
-	150	-	X	-	1025063	-	Std.	333	-	1093721	-
-	200	-	Y	-	1025081	-	Std.	463	-	1093723	-
-	300	-	Z	-	1025090	-	Std.	630	-	1093724	-

\* NOTE: Proof load is 2 times Working Load Limit. All carbon hooks - average straightening load (ultimate load) is 5 times Working Load Limit. Alloy shank hooks 1.25 ton through 300 ton - average straightening load (ultimate load) is 4 times Working Load Limit. All bronze hooks - average straightening load (ultimate load) is 4 times Working Load Limit.

† New 319N style hook.

‡ See column "Y" on following page for actual length.

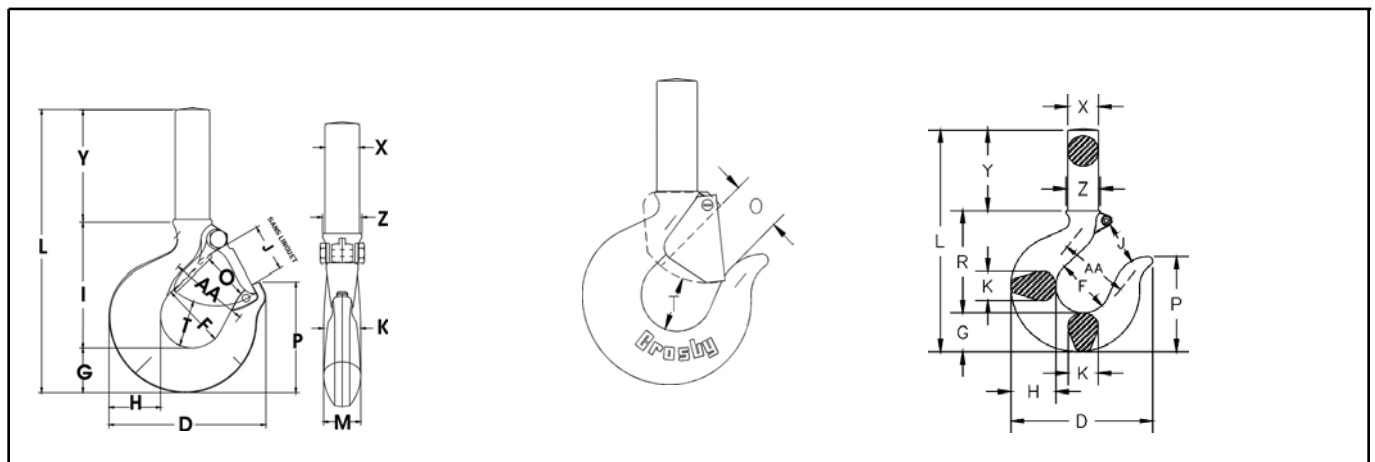
# Crosby® Shank Hooks



**SEE APPLICATION AND WARNING INFORMATION**  
On Pages 112 - 113

## S-319 / S-319N

- The most complete line of shank hoist hooks. Available 3/4 to 300 tons.
- Available in carbon steel, alloy steel, and bronze.
- Quenched and Tempered.
- Proper design, careful forging, and precision controlled quench and tempering give maximum strength without excessive weight and bulk.
- Every Crosby Shank Hook has a pre-drilled cam which can be equipped with a latch. Simply purchase the latch assemblies listed and shown on pages 89-91. Even years after purchase of the original hook, latch assemblies can be added.
- Load Rating code stamped on each hook.



Hooks & Swivels

Hook D Code	Dimensions (mm)															
	D	F	G	H	J	K	L	M	O	P	R	T	X*	Y	Z	AA
D	725	31.8	18.5	20.6	23.6	16.0	131	16.0	†23.6	49.8	59.5	24.6	15.0	52.5	17.5	38.1
F	805	35.1	21.3	23.9	24.6	18.0	144	18.0	†24.6	56.5	66.0	24.6	16.8	57.0	19.8	50.8
G	910	38.1	25.4	29.5	26.9	22.4	161	22.4	†26.9	62.0	70.0	26.2	18.3	66.0	22.4	50.8
H	102	41.1	29.0	33.3	30.2	23.9	181	23.9	†29.5	70.5	80.5	29.5	22.4	72.0	25.4	50.8
I	123	51.0	36.6	41.4	38.1	33.3	219	28.7	†35.8	88.0	98.0	38.9	29.5	87.5	31.8	63.5
J	160	63.5	46.2	52.5	45.2	42.2	265	36.6	†42.9	117	121	49.3	35.8	97.5	39.6	76.2
K	192	76.0	57.5	67.0	61.0	47.8	318	41.4	†56.5	133	149	62.5	46.0	111	49.3	101
L	212	82.5	66.0	74.5	66.5	55.5	342	49.3	†61.0	151	162	66.0	51.0	114	55.5	101
N	263	108	76.5	89.0	86.5	68.5	423	60.5	†81.0	175	207	71.5	65.0	140	67.0	127
O	346	127	92.0	117	102	76.0	586	76.0	82.5	223	240	87.5	79.0	254	79.0	165
O	346	127	92.0	117	102	76.0	790	76.0	82.5	223	240	87.5	79.0	457	79.0	165
P	357	137	116	127	108	92.0	816	76.0	76.0	287	318	98.5	102	381	102	177
P	357	137	116	127	108	92.0	1044	76.0	76.0	287	318	98.5	102	610	102	177
S	392	152	129	140	121	94.5	867	82.5	86.0	319	356	121	106	381	106	203
S	392	152	129	140	121	94.5	1095	82.5	86.0	319	356	121	106	610	106	203
T	470	178	152	165	146	113	916	99.5	105	375	395	145	114	368	114	254
T	470	178	152	165	146	113	1208	99.5	105	375	395	145	114	660	114	254
U	524	197	170	184	165	133	1045	108	137	420	492	152	127	381	127	292
U	524	197	170	184	165	133	1249	108	137	420	492	152	127	584	127	292
W	584	173	218	251	149	140	1070	140	114	438	468	178	178	381	178	305
W	584	173	218	251	149	140	1222	140	114	438	468	178	178	533	178	305
X	619	171	232	278	152	152	1162	152	114	457	467	178	184	457	184	330
Y	678	191	248	300	168	178	1283	178	127	502	521	203	203	508	203	330
Z	765	241	270	329	203	184	1389	203	159	576	597	210	241	508	241	381

\* Dimension before machining (as forged). See Hoist Hook Warnings - for maximum clean up dimensions after machining.  
† Dimensions shown are for S-4320 Latch Kits. Dimensions for sizes 20 ton carbon and larger are for PL Latch Kits.

# Crosby® Eye Hooks



Load Rated

Fatigue Rated

## S-320 & S-320N EYE HOOKS



- All Crosby 320 Eye Hoist Hooks incorporate the following features:
- The most complete line of Eye hoist hooks.
- Proper design, careful forging and precision controlled quenched and tempering give maximum strength without excessive weight and bulk.
- Every Crosby Eye Hook has a pre-drilled cam which can be equipped with a latch. Even years after purchase of the original hook, latch assemblies can be added. (See pages 89-91)
- Eye hooks are load rated.
- Available in carbon steel and alloy steel.
- Hoist hooks incorporate two types of strategically placed markings forged into the product which address two (2) QUIC-CHECK® features:
  - Deformation Indicators and Angle Indicators (see following page for detailed definition).
- The following additional features have been incorporated in the new Crosby S-320N Eye Hoist Hooks. (Sizes 3/4 ton Carbon through 22 ton Alloy.)
- A new cross section design that enhances the overall performance.
- Fatigue rated at 1-1/2 times the Working Load Limit at 20,000 cycles.
- Low profile hook tip.
- New integrated latch (S-4320) meets the World class standard for lifting.
  - Heavy duty stamped latch interlocks with the hook tip.
  - High cycle, long life spring.
  - When secured with proper cotter pin through the hole in the tip of hook, meets the intent of OSHA Rule 1926.550(g) for personnel hoisting.



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Working Load Limit (t) <sup>†</sup>		Hook ID Code	Eye Hook Stock No.			Weight Each (kg)	Replacement Latch Kits		
Carbon	Alloy		Carbon S-320C S.C.	Carbon G-320C Galv.	Alloy S-320A S.C.		S-4320 Stock No.	PL Stock No.	SS-4055 Stock No.
.75†	1.25 †	D	1022200	1022208	1022375	.28	1096325	-	-
1†	1.6 †	F	1022211	1022219	1022386	.40	1096374	-	-
1.6†	2.5 †	G	1022222	1022230	1022397	.65	1096421	-	-
2†	3.2 †	H	1022233	1022241	1022406	.94	1096468	-	-
3.2†	5.4 †	I	1022244	1022249	1022419	1.95	1096515	-	-
5†	8 †	J	1022255	1022262	1022430	3.76	1096562	-	-
7.5†	11.5 †	K	1022264	1022274	1022441	6.80	1096609	-	-
10†	16 †	L	1022277	1022285	1022452	9.80	1096657	-	-
15†	22 †	N	1022288	1022296	1022465	17.9	1096704	-	-
20	30	O	1023289	-	1023546	27.2	-	1093716	1090161
25	37	P	1023305	-	1023564	47.6	-	1093717	1090189
30	45	S	1023323	-	1023582	67	-	1093718	1090189
40	60	T	1023341	-	1023608	103	-	1093719	1090205

\* Carbon eye hooks .75tC-40tC: proofload is 2 times working load limit. Designed with a 5 to 1 safety factor.  
 Alloy eye hooks 1.5tA-22tA : proofload is 2.5 times working load limit. Designed with a 4 to 1 safety factor.  
 Alloy eye hooks 31.5tA - 60tA: proofload is 2 times working load limit. Designed with a 4 to 1 safety factor.

† New 320N style hook.

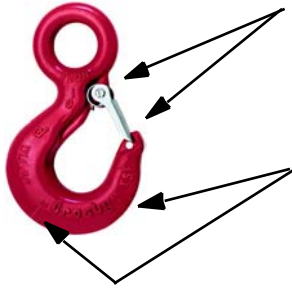
# Crosby® Eye Hooks



Load Rated

Fatigue Rated

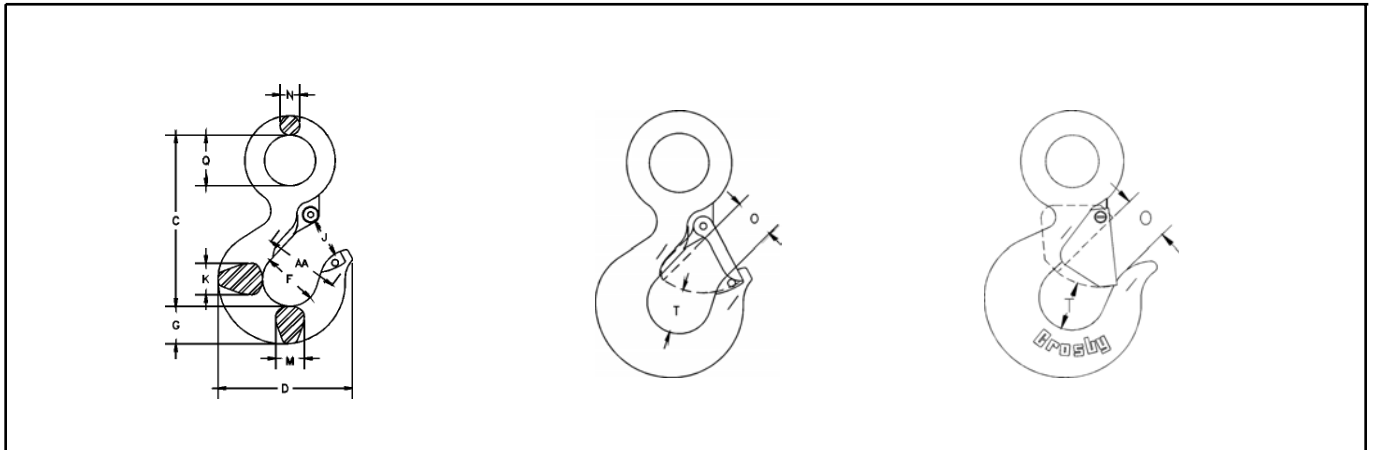
## S-320 & S-320N EYE HOOKS



- Hoist hooks incorporate markings forged into the product which address two (2) QUIC-CHECK® features.
- Deformation Indicators -- Two strategically placed marks, one just below the shank or eye and the other on the hook up, which allows for a QUIC-CHECK® measurement to determine if the throat opening has changed, thus indicating abuse or overload.
- To check, use a measuring device (i.e. tape measure) to measure the distance between the marks. The marks should align. If the measurement does not meet this criteria, the hook should be inspected further for possible damage.
- Angle Indicators -- Indicates the maximum included angle which is allowed between two (2) sling legs in the hook. These indicators also provide the opportunity to approximate other included angles between two sling legs.

**SEE APPLICATION AND WARNING INFORMATION**  
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Hooks & Swivels



Hook ID Code	Dimensions (mm)											
	C	D	F	G	J	K	M	N	O	Q	T	AA
D	85.0	72.0	31.8	18.5	22.9	16.0	16.0	9.14	22.6	19.1	22.1	38.1
F	97.0	79.0	35.1	21.3	23.6	18.0	18.0	10.7	23.1	23.1	24.9	50.8
G	105	89.5	38.1	25.4	25.4	22.4	22.4	14.0	25.4	28.7	26.2	76.2
H	119	101	41.4	28.7	28.7	23.9	23.9	14.7	27.7	31.8	29.5	50.8
I	147	122	51.0	36.6	37.3	33.3	33.3	18.3	34.5	39.6	38.9	63.5
J	187	159	63.5	46.0	44.5	42.2	42.2	22.9	40.9	51.0	49.8	76.2
K	230	189	76.0	57.0	58.0	47.8	41.4	28.2	53.0	62.0	62.5	102
L	256	211	82.5	66.0	63.5	55.5	49.3	32.3	57.5	72.0	66.5	102
N	318	262	108	76.0	84.0	68.5	60.5	39.6	76.5	89.0	72.0	127
O	357	346	127	92.0	102	76.0	76.2	44.5	82.5	89.0	87.5	165
P	462	357	137	116	108	102	81.0	51.0	76.0	114	98.5	178
S	511	392	152	129	121	114	82.6	55.4	86.0	125	121	203
T	602	470	178	152	146	140	99.3	64.3	105	145	145	254

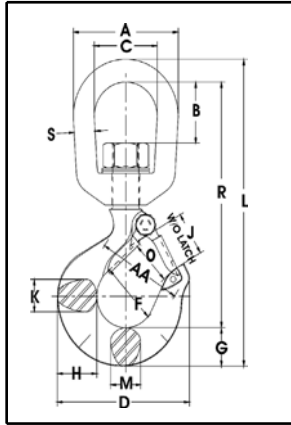
# Crosby® Swivel Hooks



**SEE APPLICATION AND WARNING INFORMATION**

On Pages 112 - 113

## S-322CN / S-322AN



- Forged — Quenched and Tempered.
- Proper design, careful forging, and precision controlled quench and tempering gives maximum strength without excessive weight and bulk.
- Every Crosby Swivel hoist hook has a pre-drilled cam which can be equipped with a latch. Simply purchase the latch assemblies listed and shown on pages 89-91. Even years after purchase of the original hook, latch assemblies can be added.
- Load rating codes stamped on each hook. 322 Swivel Hooks use the same load rating code as 319 Shank Hooks, see page 84 for proper Hook Identification Codes.
- Hoist hooks incorporate markings forged into the product which address two (2) **QUIC-CHECK®** features:
  - Deformation Indicators -- Two strategically placed marks, one just below the shank or eye and the other on the hook tip, which allows for a **QUIC-CHECK®** measurement to determine if the throat opening has changed, thus indicating abuse or overload.
  - Angle Indicators — Indicates the maximum included angle which is allowed between two (2) sling legs in the hook. These indicators also provide the opportunity to approximate other included angles between two sling legs.



This hook is a positioning device and is not intended to rotate under load. For swivel hooks designed to rotate under load, see pages 94, 101, 106-110. Use in salt water requires shank and nut inspection in accordance with A.S.M.E. B30.10-1.2.1(b)(2)(c) 1996.

- U.S. Patents 5,381,650 & 5,193,480 & 5,103,755 and foreign equivalents.

Working Load Limit (t)		S-322 CN Stock No.	S-322 AN Stock No.	Weight Each (kg)	Dimensions (mm)														Rep. Latch Stock No.	
Carbon	Alloy				A	B	C	D	F	G	H	J	K	L	M	O	R	S		AA
.75	1.25	1048600	1048804	.34	51.0	20.8	31.8	72.5	31.8	18.5	20.6	23.6	16.0	144	16.0	23.6	116	9.65	38.1	1096325
1	1.60	1048609	1048813	.57	63.5	33.3	38.1	80.0	35.1	21.3	23.9	24.6	18.0	170	18.0	24.6	136	12.7	50.8	1096374
1.6	2.50	1048618	1048822	1.02	76.0	38.1	44.5	91.0	38.1	25.4	29.5	26.9	22.4	197	22.4	26.9	155	16.0	50.8	1096421
2	3.20	1048627	1048831	1.04	76.0	38.1	44.5	102	41.1	28.7	33.3	30.2	23.9	210	23.9	29.5	165	16.0	50.8	1096468
3.2	5.4	1048636	1048837	2.25	89.0	41.7	50.8	123	51.0	36.6	41.4	38.1	33.3	246	28.7	35.8	191	19.1	63.5	1096515
5	8.0	1048645	1048854	4.67	116	58.0	63.5	160	63.5	46.0	52.5	45.2	42.2	317	36.6	42.9	245	25.4	76.2	1096562
7.5	11.5	1048654	1048865	7.34	127	64.5	70.0	192	76.0	57.0	67.0	51.0	47.8	375	41.4	56.5	289	28.7	101	1096609
10	16	1048663	1048877	10.5	143	63.0	79.0	212	82.5	66.0	74.5	66.5	55.5	417	49.3	61.0	311	31.8	101	1096657
15	22	1048672	1048886	21.3	180	95.5	104	263	108	76.0	89.0	86.5	68.5	542	60.5	81.0	424	38.1	127	1096704
-	31.5	-	1025688	32.0	180	95.5	104	346	127	93.0	118	102	72.5	590	76.2	82.6	459	38.1	165	1093716

\* NOTE: Carbon swivel hooks .75tC-15tC: proofload is 2 times working load limit. Designed with a 5 to 1 safety factor.

Alloy swivel hooks 1.5tA-22tA : proofload is 2.5 times working load limit. Designed with a 4 to 1 safety factor.

Alloy swivel hook 31.5tA: proofload is 2 times working load limit. Designed with a 4 to 1 safety factor.

Dimensions for hooks 3/4 ton carbon thru 22 ton alloy are for S-4320 latch kits. Dimensions for hooks 31.5 ton alloy are for PL latch kit.

# S-4320 Latch Kits



**SEE APPLICATION AND WARNING INFORMATION**

On Page 116

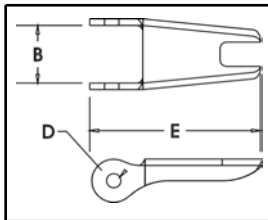
## S-4320 LATCH KITS



- Heavy duty stamped latch interlocks with the hook tip.
- High cycle, long life spring.
- Can be made into a "Positive Locking" Hook when proper cotter pin is utilized.
- Latch kits shipped unassembled and individually packaged with instructions.

**IMPORTANT:** The new S-4320 Latch Kit will not fit the old style 319, 320 and 322 hooks.

Hooks & Swivels



## S-4320 Replacement Latch Kit for New 319N, and 320N, 322N and 339N Hooks.

Hook Size (t)			Hook ID Code	S-4320 Stock No.	SS-4320 Stock No.†	Weight Each (kg)	Dimensions (mm)		
Carbon	Alloy	Bronze					B	D	E
.75	1.25	.5	D	1096325	1097100	.01	12.7	3.80	36.6
1	1.6	.6	F	1096374	1097109	.02	13.7	4.30	39.6
1.6	2	1	G	1096421	1097118	.02	16.0	4.30	42.2
2	3.2	1.4	H	1096468	1097127	.03	16.8	4.30	48.5
3.2	5.4	2	I	1096515	1097136	.05	21.1	5.10	58.5
5	8	3.5	J	1096562	1097145	.07	26.4	5.10	87.5
7.5	11.5	5	K	1096609	1097154	.13	31.8	6.85	90.5
10	16	6.5	L	1096657	1097163	.15	34.3	6.85	97.0
15	22	10	N	1096704	1097172	.38	42.2	9.90	132

\* SS-4320 is Stainless Steel construction with cad plated steel nuts.

# Positive Locking Flapper Latches



**SEE APPLICATION AND WARNING INFORMATION**

On Pages 118 - 119

## PL LATCH KITS



PL LATCH  
(Patented in U.S.A. & Canada)

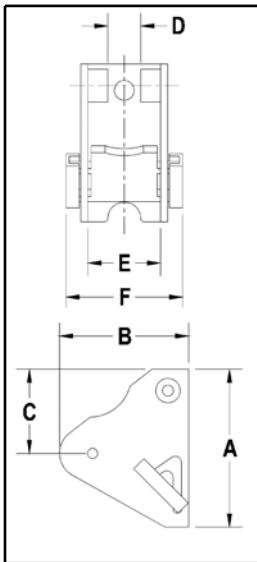
### • LATCH ORDERING INSTRUCTIONS

- 1. Specify PL, PL-N or PL-O latch kit stock number from charts below.
- 2. Specify capacity of hook to which latch will be assembled.
- 3. Specify hook material (carbon or alloy).

## PL-N/O



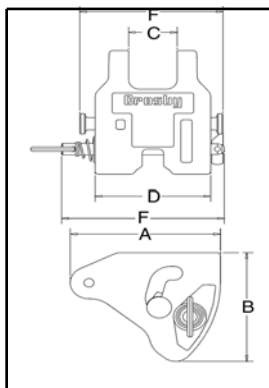
NOTE: The PL latch will not work on 319N, 320N or 322N hooks.  
The PL-N/O Latches, in the sizes available, will work on both the old style and new style hooks.



### PL Latch Kits

- Heavy duty latch with easy operating features.
- Hot dip galvanized.
- Flapper lever indicates locked or unlocked position.
- Assembly instructions included with each latch.
- For additional dimensional data on eye, shank or swivel hooks refer to pages 84 through 88 in this section.
- Meets the intent of OSHA Rule 1926.550 (g) (when secured with the bolt, nut and pin) for lifting personnel.

Hook Size (t)		PL Latch Kit Stock No.	Weight Each (kg)	Dimensions (mm)					
Carbon	Alloy			A	B	C	D	E	F
3.2	5.4	1093711	24	65.5	59.5	49.3	14.2	28.7	51.0
5	8	1093712	30	76.0	59.5	51.0	16.0	35.1	56.5
7.5	11.5	1093713	45	92.0	70.5	60.5	16.0	41.4	60.5
10	16	1093714	57	102	82.0	68.5	16.0	47.8	86.0
15	22	1093715	1.34	135	102	74.0	21.3	60.5	87.5
20	31.5	1093716	1.84	152	113	81.0	26.9	73.0	108
25	37	1093717	3.91	178	168	103	57.0	114	155
30	45	1093718	4.54	171	178	102	57.0	121	162
40	60	1093719	6.49	203	195	111	88.0	140	184
50	75	1093720	12.2	251	208	130	86.0	165	226
-	100-150	1093721	15.1	276	281	162	86.0	191	254
-	200	1093723	20.4	302	284	162	86.0	222	286
-	300	1093724	24.9	318	310	203	86.0	248	330




### PL-N/O Latch Kits

- Heavy duty latch with easy operating features.
- PL-N designed for Crosby 319N & 320N style hooks, PL-O designed for Crosby 319 & 320 old style hooks.
- Flapper lever indicates locked or unlocked position.
- Assembly instructions included with each latch.
- For additional dimensional data on eye, shank or swivel hooks refer to pages 84 through 88 in this section.
- Meets the intent of OSHA Rule 1926.550 (g) (when secured with the supplied toggle pin) for lifting personnel.

Hook Size (tons)		Hook ID Code	PL-N Stock No.	PL-O Stock No.	Weight Each (kg)	Dimensions (mm)					
Carbon	Alloy										
3.2	5.4	I	1092000	1091900	.36	60.9	51.0	21.1	54.1	68.8	87.4
5	8	J	1092001	1091901	.58	74.7	63.5	25.4	64.0	81.0	97.3
7.5	11.5	K	1092002	1091902	.90	92.2	76.7	30.2	69.9	87.4	111
10	16	L	1092003	1091903	1.27	102	86.1	34.0	81.0	102	114
15	22	N	1092004	1091904	2.22	132	110	40.9	98.0	122	130

# SS-4055 and S-4088 Latch Kits

 **SEE APPLICATION AND WARNING INFORMATION**  
On Page 117

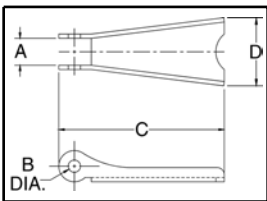
## SS-4055



### • LATCH ORDERING INSTRUCTIONS

- Specify latch kit stock number.
- Specify capacity of hook to which latch will be assembled.
- Specify hook material (carbon or alloy).

NOTE: These latches will not work on new "N" style Hooks.

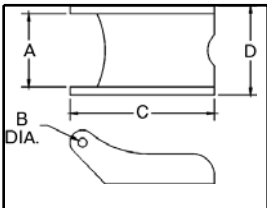


## SS-4055 Latch Kits

- Stainless steel construction with cadmium plated steel nuts.
- Shipped packaged and unassembled.
- Instructions included for easy field assembly.

Hook Size (t)			Hook ID Code	SS-4055 Stock No.	Weight Each (kg)	Dimensions (mm)			
Carbon	Alloy	Bronze				A	B	C	D
.75	1.25	.5	D	1090027	.01	9.65	4.05	36.6	15.0
1	1.6	.6	F	1090045	.01	9.65	4.05	40.6	15.0
1.6-2.0	2.5-3.2	1.0-1.4	G / H	1090063	.01	11.9	4.85	46.7	20.8
3.2	5.4	2.0	I	1090081	.03	14.2	4.30	61.0	25.4
5	8	3.5	J	1090107	.05	14.7	5.10	75.5	30.7
7.5-10	11.5-16	5.0 -6.5	K / L	1090125	.08	15.0	6.86	93.0	38.1
15	22	10.0	N	1090143	.18	21.1	9.90	125	48.3
20	30	--	O	1090161	.29	23.9	13.2	149	65.0
25-30	37 -45	--	P / S	1090189	.51	55.5	9.90	165	97.5
40	60	--	T	1090205	.80	84.0	13.2	200	105

## S-4088



## S-4088 Alloy Hook Latch Kits

- To be used on A-327 and A-339 Grade 8 Sling Hooks.
- Latch Kits shipped unassembled and individually packaged with instructions.

Hook Chain Size (mm)	S-4088 Stock No.	Weight Each (kg)	Dimensions (mm)			
			A	B	C	D
6-7	1090250	.03	19.8	4.05	51.5	23.9
8-10	1090251	.06	26.2	4.85	68.5	31.8
13	1090252	.07	26.2	4.85	76.0	31.8
16	1090253	.07	26.2	4.85	82.5	31.8
19	1090254	.07	38.9	6.60	105	47.8
22	1090255	.07	38.9	6.60	118	51.0

**HOOK CONNECTORS**

The 6 connector styles shown below make it possible for Crosby to furnish a Golden Gate Hook to fit almost any make or model of hoisting equipment including

American Engineering Lo-Hed, ARO, Coffing, Electro Lift, Ingersoll-Rand, P & H, Robbins and Myers, Shepard Niles, CM, Shaw-Box, Wright, Yale & Towne.

**CLOSED SWIVEL BAIL**

For use where hoisting line or shackle can be inserted into the bail.  
Hook sizes: 1 through 14



Style C — with self-closing gate.  
Style A — with manual-closing gate.

**SHANK-TYPE HOOK (Standard Length)**

For use on existing load blocks, with standard shank length.  
Hook sizes: 2 through 14



Style D — with self-closing gate.  
Style B — with manual-closing gate.

**SHANK-TYPE HOOK (Long Length)**

For use on existing load blocks requiring extra shank length.  
Hook sizes: 4 through 17



Style K — with self-closing gate.  
Style I — with manual-closing gate.

**UNIVERSAL TYPE**

Open swivel bail for attachment to link chain.  
Hook sizes: 3, 4 and 5



Style E — with self-closing gate.  
Style G — with manual-closing gate.

**LINK CHAIN NEST**

With ball-bearing swivel; attaches to chain by an alloy pin.  
Hook sizes: 4, 5 and 7



Style O — with self-closing gate.  
Style P — with manual-closing gate.

**ROLLER CHAIN NEST**

Attachment with ball-bearing swivel and full-floating connector.  
Hook sizes: 4, 5 and 6



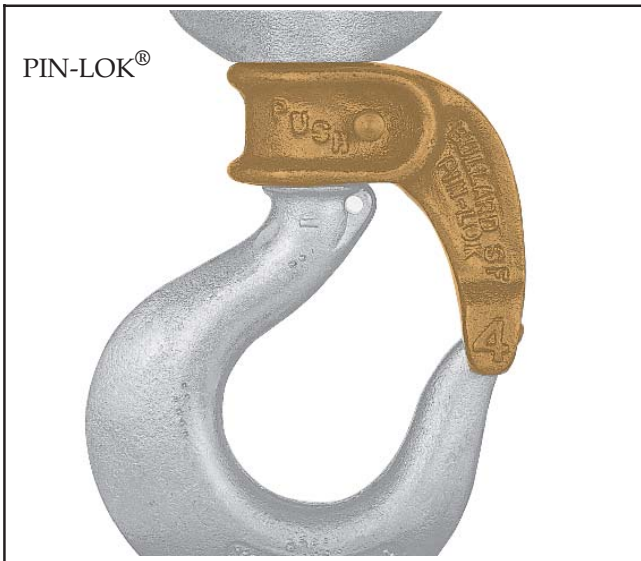
Style S — with self-closing gate.  
Style R — with manual-closing gate.

Letter designations shown beneath each illustration above indicate BOTH connector style and gate type. Each connector is available with either a self-closing or manual-closing gate. (e.g.: A size 4 hook with a closed swivel bail connector and self-closing gate is 4-C; with manual-closing gate, it is 4-A.)

**GATE TYPES**

Brass alloy Golden Gates® are engineered for quality, easy handling and dependability. The heavy duty, corrosion resistant locking mechanism will stay locked until an operator releases it; yet, can easily

be shut with one hand. Cost effective, these gates reduce down time, providing the alternative to conventional latches.



**LIF-LOK® GATE - Size 1**

- To lock: close the gate; the built-in spring locks the gate against the hook tip.
- To unlock: lift the gate upward on the hook shank and swing open.

**PIN-LOK® - Sizes 2 through 4**

- To lock: close the gate; a stainless steel pin is carried in a horizontal bore and engages a milled slot in the hook shank.
- To unlock: simply depress the stainless steel pin which causes the pin to disengage from the milled slot.

**ROLLOX® GATE - Sizes 5 through 9**

- To lock: close the gate; a stainless steel pin is mounted in a horizontal bore which passes through the gate and engages a notch milled in the hook shank.
- To unlock: move the lever downward a quarter-turn or until it stops, the gate can now swing open 160° (approx.)

**TIP-LOK® GATE - Sizes 10 through 17**

- To lock: press the arm down until the lock trips; two arms of the gate now enclose the tip of the hook.
- To unlock: manually depressing the locking trigger automatically raises the movable arm, allowing the gate to be rotated open.

# Crosby® / Bullard® Golden Gate® Hooks



**SEE APPLICATION AND WARNING INFORMATION**

On Pages 114 - 115

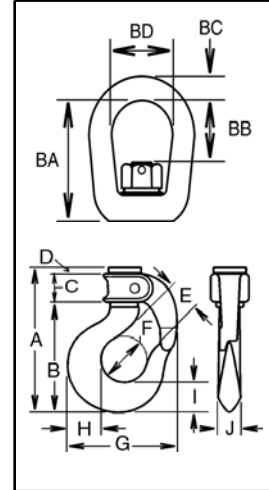
## CLOSED SWIVEL BAIL

### BAIL



• For use where hoisting line or shackle can be inserted into the bail.

- BL-C - with self-closing gate.
- BL-A - with manual-closing gate.



Hook Size	BL-C Stock No.	BL-A Stock No.	Gate Type	Working Load Limit (t)*	Weight Each (kg)	Dimensions (mm)													
						A	B	C	D	E	F	G	H	I	J	BA	BB	BC	BD
1	1050210	1050001	LIF-LOK	.45	.36	82.0	58.7	16.0	6.60	17.5	22.4	57.0	17.5	16.0	11.2	44.5	16.0	7.85	25.4
2	1050221	1050012	PIN-LOK	.90	.59	105	76.2	23.6	4.06	24.6	31.8	73.0	20.6	19.1	11.2	47.2	24.1	9.65	31.8
3	1050232	1050023	PIN-LOK	1.3	.86	114	84.0	23.9	5.58	26.9	35.1	84.0	23.9	21.3	16.0	62.0	33.3	12.7	38.1
4	1050243	1050034	PIN-LOK	1.5	1.00	124	92.2	25.4	5.58	28.7	38.1	92.0	29.5	25.4	19.1	67.5	34.3	12.7	38.1
5	1050254	1050045	ROLLOX	2.1	1.72	143	105	31.2	6.35	31.8	41.7	104	33.3	28.4	21.3	74.0	40.6	16.0	44.5
6	1050265	1050056	ROLLOX	3.6	2.09	158	119	31.8	6.35	35.3	41.7	116	39.9	34.0	24.6	78.5	35.8	16.0	44.5
7	1050276	1050067	ROLLOX	3.8	3.13	168	132	28.4	6.35	38.1	51.0	125	41.4	36.6	28.7	88.5	42.4	19.1	51.0
8	1050287	1050078	ROLLOX	5.0	4.35	182	147	26.9	7.11	44.5	57.0	148	51.0	41.9	31.2	103	51.0	22.4	57.0
9	1050298	1050089	ROLLOX	6.5	6.12	199	164	26.9	7.87	47.8	63.5	165	52.5	46.0	36.1	118	56.0	26.2	63.5
11	1050309	1050100	TIP-LOK	8.3	9.30	244	203	31.8	7.87	57.0	76.0	192	67.0	57.0	41.1	124	66.5	28.7	70.0
12	1050320	1050111	TIP-LOK	11.1	12.3	267	225	31.8	9.65	63.5	82.5	221	74.5	65.5	49.3	130	57.0	31.8	79.5
14	1050342	1050133	TIP-LOK	16.7	25.0	320	273	35.8	9.65	86.0	108	279	89.0	75.5	60.5	203	108	41.4	104

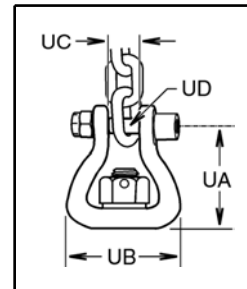
\* Ultimate Load is 4 times the Working Load Limit.

## OPEN SWIVEL BAIL



• Open Swivel Bail for attachment to link chain.

- BL-E - with Self-Closing Gate
- BL-G - with Manual-Closing Gate



Hook Size	BL-E Stock No.	BL-G Stock No.	Gate Type	Working Load Limit (t)*	Weight Each (kg)	Dimensions (mm)													
						A	B	C	D	E	F	G	H	I	J	UA	UB	UC	UD
3	1051607	1051706	PIN-LOK	1.3	.81	114	84.5	23.9	5.58	26.9	35.1	81.0	23.9	21.3	16.0	53.0	59.0	13.2	9.65
4	1051618	1051717	PIN-LOK	1.5	.95	124	92.2	25.4	5.58	28.7	38.1	92.0	29.5	25.4	19.1	54.5	59.0	13.2	9.65
5	1051629	1051728	ROLLOX	2.1	1.45	143	105	31.2	6.35	31.8	41.7	104	33.3	28.4	21.3	65.0	67.0	15.7	11.2

\* Ultimate Load is 4 times the Working Load Limit.

# Crosby® / Bullard® Golden Gate® Hooks

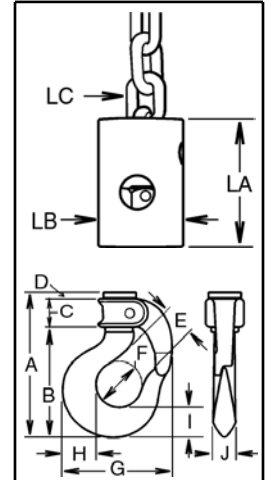


**SEE APPLICATION AND WARNING INFORMATION**  
On Pages 114 - 115

## LINK CHAIN NEST



- With ball bearing swivel; attaches to chain by an alloy pin.
  - BL-O - with Self-Closing Gate
  - BL-P - with Manual Closing Gate



Hooks & Swivels

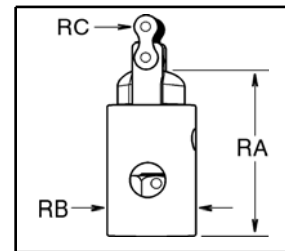
Hook Size	BL-O Stock No.	BL-P Stock No.	Gate Type	Working Load Limit (t)*	Weight Each (kg)	Dimensions (mm)												
						A	B	C	D	E	F	G	H	I	J	LA	LB	LC
4:1/4-9/32	1051409	1051508	PIN-LOK	1.5	1.13	124	92.2	25.4	5.58	28.7	38.1	92.0	29.5	25.4	19.1	67.0	44.5	6.35-7.15
5:5/16-3/8	1051442	1051541	ROLLOX	2.1	2.04	143	105	31.2	6.35	31.8	41.7	104	33.3	28.4	21.3	76.0	57.0	7.95-9.50
7:3/8-7/16	1051464	1051563	ROLLOX	3.8	5.0	168	132	28.4	6.35	38.1	51.0	125	41.4	36.6	28.7	111	76.0	9.50-14.3
7:1/2-9/16	1051486	1051585	ROLLOX	3.8	5.0	168	132	28.4	6.35	38.1	51.0	125	41.4	36.6	28.7	111	76.0	9.50-14.3

\* Ultimate Load is 4 times the Working Load Limit.

## ROLLER CHAIN NEST



- Attachment with ball-bearing swivel and full-floating connector.
  - BL-S - with Self-Closing Gate
  - BL-R - with Manual Closing Gate



Hook Size	BL-S Stock No.	BL-R Stock No.	Gate Type	Working Load Limit (t)*	Weight Each (kg)	Dimensions (mm)												
						A	B	C	D	E	F	G	H	I	J	RA	RB	RC
4 : #50	1051310	1051200	PIN-LOK	.68	1.32	124	92.2	25.4	5.58	28.7	38.1	92.0	29.5	25.4	19.1	89.5	44.5	15.9
5 : #60	1051321	1051211	ROLLOX	1.13	2.36	143	105	31.2	6.35	31.8	41.7	104	33.3	28.4	21.3	108	54.0	19.1
6 : #60	1051332	1051222	ROLLOX	1.13	2.81	158	119	31.8	6.35	35.3	41.7	116	39.9	34.0	24.6	108	54.0	19.1

\* Ultimate Load is 4 times the Working Load Limit.

# Crosby® / Bullard® Golden Gate® Hooks



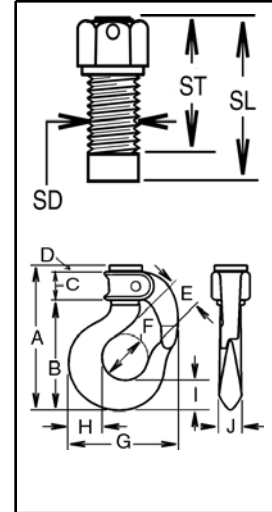
**SEE APPLICATION AND WARNING INFORMATION**

On Pages 114 - 115

## STANDARD LENGTH SHANK HOOKS



- For use on existing load blocks, with standard shank length.
- No.'s 2 through 12 style hooks are threaded approximately 80% of shank length.
  - **BL-D** - with Self-Closing Gate
  - **BL-B** - with Manual Closing Gate



Hook Size	BL-D Stock No.	BL-B Stock No.	Gate Type	Working Load Limit (t)*	Weight Each (kg)	Dimensions (mm)												
						A	B	C	D	E	F	G	H	I	J	SD	SL	ST
2	1050606	1050408	PIN-LOK	.91	.50	105	76.2	23.6	4.06	24.6	31.8	73.0	20.6	19.1	14.2	12.7	23.1	15
3	1050617	1050419	PIN-LOK	1.3	.59	114	84.1	23.9	5.58	26.9	35.1	81.0	23.9	21.3	16.0	14.2	31.8	19.1
4	1050628	1050430	PIN-LOK	1.5	.77	124	92.2	25.4	5.58	28.7	38.1	92.0	29.5	25.4	19.1	16	33.3	30.2
5	1050639	1050441	ROLLOX	2.1	1.13	143	105	31.2	6.35	31.8	41.7	104	33.3	28.4	21.3	19.1	33.3	25.4
6	1050650	1050452	ROLLOX	3.6	1.59	158	119	31.8	6.35	35.3	41.7	116	39.9	34.0	24.6	22.4	43	29.5
7	1050661	1050463	ROLLOX	3.8	2.36	168	132	28.4	6.35	38.1	51.0	125	41.4	36.6	28.7	25.4	46	35.1
8	1050672	1050474	ROLLOX	5.0	3.22	182	147	26.9	7.11	44.5	57.0	148	51.0	41.9	31.2	28.7	52.5	38.1
9	1050683	1050485	ROLLOX	6.5	4.31	199	164	26.9	7.87	47.8	63.5	165	52.5	46.0	35.1	31.8	62	46
11 †	1050694	1050496	TIP-LOK	8.3	7.08	244	203	31.8	7.87	57.0	76.0	192	67.0	57.0	41.1	38.1	68.5	47.8
12 †	1050705	1050507	TIP-LOK	11.2	9.53	267	225	31.8	9.65	63.5	82.5	221	74.5	65.5	49.3	41.4	73	54
13 †	1050716	1050518	TIP-LOK	13.6	13.6	285	242	31.8	9.65	76.0	95.0	245	83.5	70.0	49.3	44.5	89	56
14 †	1050727	1050529	TIP-LOK	16.8	18.1	320	273	35.8	9.65	86.0	108	279	89.0	75.5	60.5	51	92.5	60.5

\* Ultimate Load is 4 times the Working Load Limit.

† Requires a drawing indicating the hook's exact shank diameter, shank length, thread length and throat opening requirements. If a drawing is not available, complete a Crosby/Bullard HOOKDATA FORM on page 333.

Hook No.'s 2 through 12 style hooks are threaded approximately 80% of the shank length.

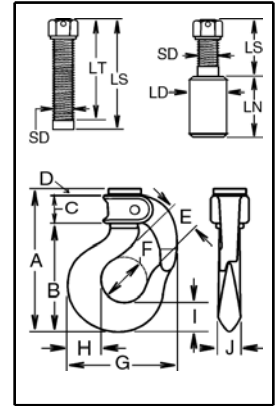
# Crosby® / Bullard® Golden Gate® Hooks

**SEE APPLICATION AND WARNING INFORMATION**  
On Pages 114 - 115

## LONG LENGTH SHANK HOOKS



- For use on existing load blocks requiring extra shank length.
- No.'s 4 through 9 style hooks are threaded approximately 80% of shank length.
  - BL-K - with Self-Closing Gate
  - BL-I - with Manual Closing Gate



Hooks & Swivels

Hook Size	BL-K Stock No.	BL-I Stock No.	Gate Type	Working Load Limit (t)*	Weight Each (kg)	Dimensions (mm)													
						A	B	C	D	E	F	G	H	I	J	LD	LN	LS	LT
4 :1/2	1061002	1050804	PIN-LOK	1.45	.86	124	92.2	25.4	5.58	28.7	38.1	92.0	29.5	25.4	19.1	12.7	11.2	81.0	81.0
4:9/16	1061013	1050815	PIN-LOK	1.5	.86	124	92.2	25.4	5.58	28.7	38.1	92.0	29.5	25.4	19.1	14.2	12.2	81.0	81.0
4 :5/8	1061024	1050826	PIN-LOK	1.5	.86	124	92.2	25.4	5.58	28.7	38.1	92.0	29.5	25.4	19.1	16.0	14.0	84.0	81.0
5	1061035	1050837	ROLLOX	2.1	1.36	143	105	31.2	6.35	31.8	41.7	104	33.3	28.4	21.3	19.1	16.0	90.5	82.5
6	1061046	1050848	ROLLOX	3.6	1.72	158	119	31.8	6.35	35.3	41.7	116	39.9	34.0	24.6	22.4	19.1	103	90.0
7	1061057	1050859	ROLLOX	3.8	2.68	168	132	28.4	6.35	38.1	51.0	125	41.4	36.6	28.7	25.4	22.4	116	105
8	1061068	1050870	ROLLOX	5.0	3.54	182	147	26.9	7.11	44.5	57.0	148	51.0	41.9	31.2	28.4	23.9	129	114
9	1061079	1050881	ROLLOX	6.5	4.90	199	164	26.9	7.87	47.8	63.5	165	52.5	46.0	35.1	31.8	26.9	141	125
12 ††	1061101	1050903	TIP-LOK	11.2	12.7	267	225	31.8	9.65	63.5	82.5	221	74.5	65.5	49.3	41.4	39.6	137	118
13 ††	1061112	1050914	TIP-LOK	13.6	15.9	285	242	31.8	9.65	76.0	95.5	245	83.5	70.0	49.3	44.5	38.1	187	146
14 ††	1061123	1050925	TIP-LOK	16.8	20.4	320	273	35.8	9.65	86.0	108	279	89.0	75.5	60.5	51.0	50.8	137	102
16 †	1061134	1050936	TIP-LOK	30.0	46.7	388	332	38.1	16.0	102	127	346	118	92.0	76.0	70.0	70.0	406	178
17 †	1061156	1050958	TIP-LOK	60.0	168	615	522	66.8	23.9	146	178	470	165	152	113	102	100	578	356

\* Ultimate Load is 4 times the Working Load Limit.

† Requires a drawing indicating the hook's exact shank diameter, shank length, thread length and throat opening requirements. If a drawing is not available, complete a Crosby/Bullard HOOK DATA FORM as shown on page 333.

Hook No.'s 4 through 9 are threaded approximately 80% of the shank length.

‡ Hook will have the shank extended by use of a Coupling Nut.

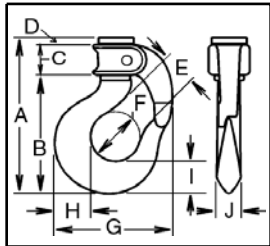
# Crosby® / Bullard® Golden Gate® Hooks



**SEE APPLICATION AND WARNING INFORMATION**

On Pages 114 - 115

## BL-PKU DOUBLE ENDED HOOK



### Double Ended Hook

Available only with Manual Closing gate.

Hook Size and Type	BL-PKU Stock No.	Gate Type	Working Load Limit (t)*	Weight Each (kg)	Dimensions (mm)									
					A	B	C	D	E	F	G	H	I	J
4PKU	1051805	PIN-LOK	1.5	2.27	124	92.2	25.4	5.58	28.7	38.1	92.0	29.5	25.4	19.1
5PKU	1051816	ROLLOX	2.1	3.63	143	105	31.2	6.35	31.8	41.7	104	33.3	28.4	21.3
6PKU	1051827	ROLLOX	3.6	5.00	158	119	31.8	6.35	35.3	41.7	116	39.9	34.0	24.6

\* Ultimate Load is 4 times the Working Load Limit.

## Crosby® / Bullard Golden Gate Hooks Service Parts

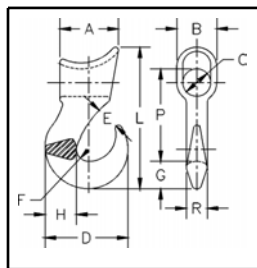
Hook Size	Gate Type	BL-GA Gate Assemblies		BL-RK Gate Repair Kit Stock No.
		Manual Close Stock No.	Self Close Stock No.	
2	PIN-LOK	1100298	1100309	1100100
3	PIN-LOK	1100320	1100331	1100100
4	PIN-LOK	1100342	1100353	1100100
5	ROLLOX	1100364	1100375	1100111
6	ROLLOX	1100386	1100397	1100111
7	ROLLOX	1100408	1100419	1100122
8	ROLLOX	1100430	1100441	1100122
9	ROLLOX	1100452	1100463	1100122
10	TIP-LOK	1100474	1100485	1100133
11	TIP-LOK	1100496	1100507	1100144
12	TIP-LOK	1100518	1100529	1100155
13	TIP-LOK	1100540	1100551	1100166
14	TIP-LOK	1100562	1100573	1100177
15	TIP-LOK	1100584	1100595	1100188
16	TIP-LOK	1100606	1100617	1100199
17	TIP-LOK	1100639	1100628	1100210

# Crosby® Choker Hooks



## A-350

- Forged Alloy Steel -- Quenched and Tempered.



### A-350 Sliding Choker Hook

Single Part Rope Size (in. - mm)	Eight Part Rope Size (mm)	A-350 Stock No.	Working Load Limit (t)*	Weight Each (kg)	Dimensions (mm)										
					A	B	C	D	E	F	G	H	L	P	R
3/8 - 10	-	1028042	1.13	.35	52.5	28.7	16.0	61.0	16.0	9.65	21.3	23.1	109	66.0	16.0
1/2 - 13	3	1028060	1.50	.54	57.0	33.3	19.1	75.5	19.8	12.7	24.6	26.9	126	78.5	19.1
† 5/8 - 16	4	1028088	2.27	1.31	77.5	41.4	19.1	90.5	23.9	14.2	28.7	33.3	162	98.5	25.4
† 5/8 - 16	4	1028104	2.27	1.22	77.5	41.4	25.4	90.5	23.9	14.2	28.7	33.3	162	102	28.7
† 3/4 - 20	6	1028122	3.63	2.35	86.0	54.0	25.4	108	29.5	16.0	36.6	41.4	195	116	28.7
† 3/4 - 20	6-7	1028140	3.63	2.27	86.0	54.0	36.6	108	29.5	16.0	36.6	41.4	195	121	28.7

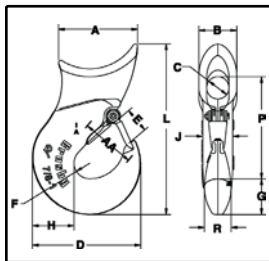
\* Ultimate Load is 5 times the Working Load Limit.  
 † Determine EYE diameter "C", before ordering.

Hooks & Swivels



## A-350L

- Cast Alloy Steel - Quenched and Tempered.
- Low profile hook tip.
- New integrated latch (S-4320) meets the World Class standard for lifting.



### A-350L Sliding Choker Hook with Latch

Single Part Rope Size (mm)	A-350L Stock No.	Working Load Limit (t)*	Weight Each (kg)	Dimensions (mm)													Replacement Latch Stock No.
				A	B	C	D	E	F	G	H	J	L	P	R	AA	
22-25	1028177	6.75	4.40	112	53.8	31.8	154	35.8	22.4	51.0	59.2	42.4	243	145	38.1	76.2	1096515

\* Ultimate Load is 5 times the Working Load Limit.

# Crosby® SHUR-LOC® Eye Hooks



**Fatigue Rated**



**SEE APPLICATION AND WARNING INFORMATION**

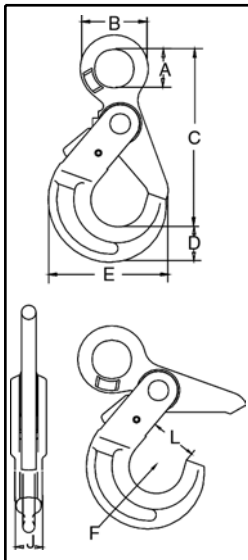
On Pages 208-209

## S-316A



- Positive Lock Latch is Self-Locking when hook is loaded.
- Forged Alloy Steel- Quenched and Tempered.
- Rated for both Wire Rope and Grade 8 Chain.
- Meets ASTM A-952-96 and proposed Euronorm standards for Grade 8 chain fittings.
- Fatigue rated.
- The SHUR-LOC® hook, if properly installed and locked, can be used for personnel lifting applications and meets the intent of OSHA Rule 1926.550 (g) (4) (iv) (B).
- G-414 Heavy Thimble should be used with wire rope slings.
- Individually Proof Tested at 2-1/2 times the Working Load Limit with certification.
- Trigger repair Kit available (S-4316). Consist of spring, roll pin and trigger.
- Designed with Engineered Flat to connect to Grade 8 chain fittings.
- "Look for the color Gold - Crosby Alloy Hooks".

## S-316A SHUR-LOC® Eye Hook



Chain Size		S-316A Stock No.	Grade 80 Alloy Chain Working Load Limit (t) 4:1 *	Wire Rope XIP IWRC Mechanical Splice		Weight Each (kg)
(in.)	(mm)			Size (mm)	Working Load Limit (t) 5:1 *	
-	6	1097918	1.12	8	.9	.39
1/4-5/16	7-8	1097920	2.0	11	1.7	.82
3/8	10	1097921	3.15	13	2.3	1.47
1/2	13	1097922	5.3	16	3.5	2.70
5/8	16	1097926	8.0	22	6.9	5.78

\* Ultimate Load is 4 times the Working Load Limit based on Grade 8 Chain.

S-316A Stock No.	Dimensions (mm)								Engineered Flat Size for S-325A (in.) - (mm)
	A	B	C	D	E	F	J	L	
1097918	19.8	36.1	100	20.1	66.0	17.0	16.0	28.7	-
1097920	27.4	50.5	135	27.9	89.0	22.1	20.6	35.1	1/4-5/16", 7-8mm
1097921	33.0	62.0	167	29.7	112	27.9	23.9	44.5	3/8", 10mm
1097922	41.9	80.0	209	42.4	138	32.0	29.5	53.5	1/2", 13mm
1097926	56.0	100	256	52.0	167	38.1	38.1	63.0	5/8", 16mm

# Crosby® SHUR-LOC® Swivel Hooks



**Fatigue Rated**

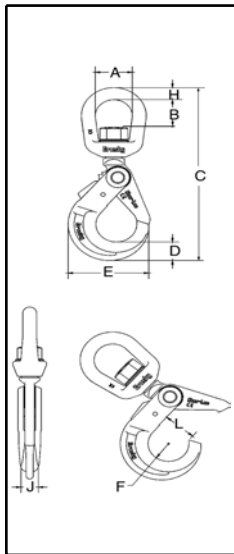
**SEE APPLICATION AND WARNING INFORMATION**  
On Pages 208-209

## S-326A



- Positive Lock Latch is Self-Locking when hook is loaded.
- Forged Alloy Steel - Quenched and Tempered.
- Rated for both Wire Rope and Grade 8 Chain.
- Meets ASTM A-952-96 and proposed Euronorm standards for Grade 8 chain fittings.
- Fatigue rated.
- The SHUR-LOC® hook, if properly installed and locked, can be used for personnel lifting applications and meets the intent of OSHA Rule 1926.550 (g) (4) (iv) (B).
- G-414 Heavy Thimble should be used with wire rope slings.
- Individually Proof Tested at 2-1/2 times the Working Load Limit with certification.
- Trigger repair Kit available (S-4316). Consists of spring, roll pin and trigger.
- Designed to rotate under load during infrequent, noncontinuous rotation.
- "Look for the color Gold - Crosby Alloy Hooks".

U.S. Patent 5,381,650 and foreign equivalents.



## S-326A SHUR-LOC® Swivel Hooks

Chain Size		S-326A Stock No.	Grade 8 Alloy Chain Working Load Limit (t) 4:1*	Wire Rope XIP IWRG Mechanical Splice		Weight Each (kg)
(in.)	(mm)			Size (mm)	Working Load Limit (t) 5:1 *	
-	6	1004201	1.12	8	9	.57
1/4-5/16	7-8	1004210	2.0	11	1.7	1.18
3/8	10	1004223	3.15	13	2.3	2.13
1/2	13	1004234	5.3	16	3.5	3.92
5/8	16	1004235	8.0	22	6.9	7.71

\* Ultimate Load is 4 times the Working Load Limit based on Grade 8 Chain.

S-326A Stock No.	Dimensions (mm)									
	A	B	C	D	E	F	H	J	L	
1004201	38.1	33.5	156	20.1	66.0	17.0	12.7	16.0	28.7	
1004210	44.5	40.4	193	27.9	89.0	22.1	16.0	20.6	35.1	
1004223	51.0	43.9	224	29.7	112	27.9	19.1	23.9	44.5	
1004234	63.5	60.5	284	42.4	138	32.0	25.4	29.5	53.5	
1004235	70.0	64.5	330	52.0	167	38.1	28.7	38.1	63.0	

Hooks & Swivels

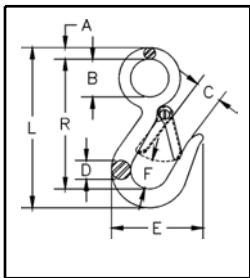
# Crosby® Forged Hooks



## G-3315



- Forged Carbon Steel -- Quenched and Tempered.
- Pressed steel latches and stainless steel springs, bolts and nuts.
- For replacement latch kit, order Stock No. 9900299.

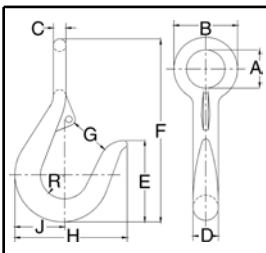


## G-3315 Snap Hooks

Hook Size (in.)	G-3315 Stock No.	Working Load Limit (t)*	Weight Each (kg)	Dimensions (mm)							
				A	B	C	D	E	F	L	R
7/16	1023056	.34	.11	6.35	19.1	19.1	11.2	57.0	19.1	100	82.5
9/16	1023074	.45	.22	8.65	28.4	20.6	14.2	68.5	22.4	120	97.5

\* Ultimate Load is 4 times the Working Load Limit.

## 1210



## 1210 Round Reverse Eye Hook

- Forged Carbon Steel -- Galvanized.

Size (in.)	1210 Stock No.	Working Load Limit (t)*	Weight Each (kg)	Latch Stock No.	Dimensions (mm)									
					A	B	C	D	E	F	G	H	J	R
1/2	919019	.14	.18	1090027	20.6	35.1	7.10	12.7	41.1	102	19.1	57.0	24.6	11.9
5/8	919037	.18	.27	1090027	23.9	39.6	7.85	15.7	51.0	114	23.9	70.0	31.0	15.0
3/4	919055	.31	.50	1090045	28.4	47.8	9.65	19.1	57.0	133	26.9	76.0	36.6	17.5
7.8	919073	.54	.73	1096468	30.2	52.5	11.2	22.4	76.0	165	31.8	86.0	41.4	19.1
1 - 1-1/8	919091	.82	.91	1090081	38.1	70.0	15.7	28.4	89.0	203	38.1	111	51.0	23.9
1-1/4 - 1-3/8	919135	1.2	2.49	1090081	47.8	89.0	20.6	35.1	102	232	41.1	127	60.5	26.9

\* Ultimate Load is 4 times the Working Load Limit.

# Crosby® Forged Hooks

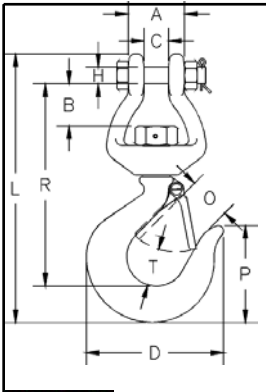


S-3316



- Easily attaches to any chain and electric hoist with welded link load chain, roller chain or wire rope with suitable end fitting.
- Swivel jaw is forged.

## S-3316 Replacement Hook



Working Load Limit (t)*	S-3316 Stock No.	Weight Each (kg)	Dimensions (mm)										Rep. Latch Kit Stock No.
			A	B	C	D	H	L	O	P	R	T	
.45	1023029	.57	33.3	19.3	14.2	81.0	9.65	155	24.6	57.0	117	20.6	1093444
.91	1023047	1.18	39.6	25.4	17.5	104	11.2	195	28.4	72.0	148	30.2	1093462

\* Ultimate Load is 5 times the Working Load Limit.

Hooks & Swivels



S-377

- Forged Carbon Steel - Quenched and Tempered.
- Meets the performance requirements of Federal Specification RR-C-271D, Type V, Class 6, except for those provisions required of the contractor.

## S-377 Barrel Hooks



Working Load Limit Per Pair (t)*	S-377 Stock No. Per Pair	Weight Each Per Pair (kg)	Dimensions (mm)			
			I.D. of Eye	O.D. of Eye	Overall Length	Width of Lip
1.0	1028248	1.61	39.6	71.4	127	73.2

\* Ultimate Load is 4 times the Working Load Limit.



A-378

- Forged Alloy Steel - Quenched and Tempered.
- Deep straight throat permits efficient handling of flat plates or large cylindrical shapes.

## A-378 Sorting Hook



Working Load Limit at tip of Hook (t)*	Working Load Limit at bottom of Hook (t)*	A-378 Stock No.	Style	Weight Each (kg)	Dimensions (mm)			
					I.D. of Eye	Overall Length	Opening at top of Hook	Radius at bottom of Hook
1.8	6.8	1028024	No Handle	2.91	35.0	246	71.4	15.9
1.8	6.8	1028033	With Handle	2.91	35.0	246	71.4	15.9

\* Ultimate Load is 4 times the Working Load Limit.

# Crosby® Forged Hooks



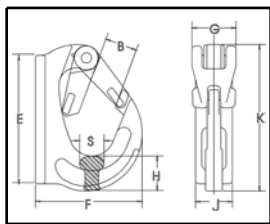
**SEE APPLICATION AND WARNING INFORMATION**

On Pages 120 - 121

## BH-313



- Designed for attachment to mobile lifting equipment to provide a pick point for easy sling attachment.
- Forged Alloy Steel.
- Wide range of sizes available: 1-10 Metric Ton capacity.
- Large weld pad.
- Heavy duty latch interlocks with the hook tip. Replacement latches available.
- Detailed installation and application instructions included with each hook.



## BH-313 Weld-On Hooks

Working Load Limit (t)*	BH-313 Stock No.	Weight Each (kg)	Dimensions (mm)								Replacement Latch Stock No.
			B	E	F	G	H	J	K	S	
1	1029105	.52	23.1	97.0	71.0	36.1	26.9	25.9	107	18.0	1092101
2	1029114	.84	23.1	82.0	91.0	36.1	24.9	34.0	115	21.1	1092101
3	1029123	1.18	29.0	117	105	36.1	31.0	36.1	131	23.9	1092101
4	1029132	1.90	34.0	131	114	46.0	36.1	42.9	147	29.0	1092102
5	1029141	2.55	34.0	161	133	47.0	45.0	43.9	173	29.0	1092102
8	1029150	3.30	35.1	166	135	47.0	52.0	52.0	178	39.1	1092102
10	1029169	5.00	49.0	205	168	47.0	57.0	54.0	222	39.1	1092103

\* Ultimate Load is 5 times the Working Load Limit.



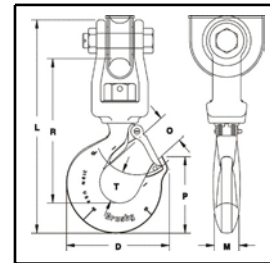
**SEE APPLICATION AND WARNING INFORMATION**

On Pages 112 - 113

## S-3319



- Designed for utility applications using synthetic rope.
- Capacities of 1.63, 2.50 and 4.50 metric tons.
- Design of hook provides needed overhaul weight.
- Hook is forged Alloy Steel - Quenched and Tempered.
- Utilizes spool & shield designed to:
  - Protect rope
  - Keep rope positioned correctly on spool.
  - Provide wider rope bearing surface resulting in an increased area for load distribution and reduces rope abrasion.
- Can be proof tested to 2 times the Working Load Limit.
- Low profile hook tip designed to utilize Crosby integrated latch (S-4320), that meets the World class standard for lifting.



## S-3319 Utility Swivel Hook

Working Load Limit (t)*	S-3319 Stock No.	Weight Each (kg)	Hook ID Code	Synthetic Rope Size (mm)	Dimensions (mm)							Replacement Latch Kit Stock No.
					D	L	M	O	P	R	T	
1.63	1002054	1.90	H	14 - 16	101	222	23.9	29.5	70.6	151	29.5	1096468
2.50	1002063	3.62	I	19 - 21	123	268	30.2	35.8	88.1	179	38.9	1096515
4.50	1002072	6.80	J	22 - 28	160	324	36.6	45.2	117	221	49.3	1096562

\* Ultimate Load is 5 times the Working Load Limit.

This hook is a positioning device and is not intended to rotate under load. For swivel hooks designed to rotate under load, see pages 94, 101, 106-110. Use in salt water requires shank and nut inspection in accordance with A.S.M.E. B30.10-1.2.1(b)(2)(c) 1996.

# Crosby® Forged Cargo Hooks



1021



## Portland Pattern

Size	1021 Stock No.	Working Load Limit (t)*	Weight Each (kg)
22	890307	9.07	7.48

\* Ultimate Load is 4 times the Working Load Limit.

1022



## New York Pattern

Size	1022 Stock No.	Working Load Limit (t)*	Weight Each (kg)
12	890343	4.54	11.3
13	890361	9.07	14.3

\* Ultimate Load is 4 times the Working Load Limit.

1023



## Seattle Pattern

Size	1023 Stock No.	Working Load Limit (t)*	Weight Each (kg)
42	890423	4.54	20.0
43	890441	9.07	32.7

\* Ultimate Load is 4 times the Working Load Limit.

# Crosby® Swivels

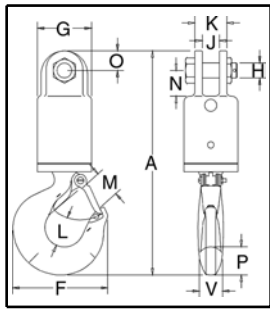
Load Rated™



- EQUIPPED WITH TAPERED ROLLER THRUST BEARING.
- Designed to swivel under load.
- All swivels individually proof tested with certification.
- All hooks furnished with latches assembled.
- All jaws complete with bolts, nuts and cotter pins.
- Pressure lube fitting provided.
- NOT TO BE USED ON DEMOLITION (WRECKING) BALLS.
- Other types and capacities up to 600 tons, available to meet your requirements.



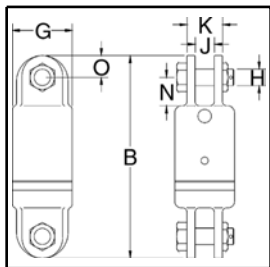
**IMPORTANT - Crosby Swivels should only be used with the recommended wire rope. Contact the wire rope manufacturer for the proper wire rope to be used with Crosby Swivels.**



## S-1 Jaw & Hook

Swivel No.	S-1 Stock No.	Working Load Limit (t)*	Wire Rope Size (mm)	Weight Each (kg)	Dimensions (mm)											
					A	F	G	H	J	K	L	M	N	O	P	V
3-S-1	297011	3	13	4.45	291	123	70.0	19.1	22.4	41.1	38.9	35.8	33.3	25.4	36.6	28.4
5-S-1	297217	5	16	7.04	339	160	76.0	22.4	25.4	57.0	49.3	42.9	41.1	28.4	46.0	36.6
8-S-1	297413	8-1/2	19	13.3	418	192	102	25.4	39.5	71.5	62.5	56.5	54.0	35.1	57.0	41.1
10-S-1	297618	10	22	21.2	502	212	114	38.1	44.5	86.0	66.0	61.0	89.0	44.5	66.0	49.3
15-S-1	297814	15	26	33.5	565	263	127	38.1	44.5	86.0	71.5	81.0	89.0	44.5	76.0	60.5
25-S-1	298118	25	-	64	680	346	152	51.0	51.0	117	87.5	92.0	93.5	60.5	93.0	76.0
35-S-1	298216	35	-	100	760	367	165	51.0	51.0	117	98.5	95.5	93.5	60.5	116	81.0
45-S-1	298314	45	-	114	891	392	178	57.0	63.5	127	121	108	102	76.0	129	82.5

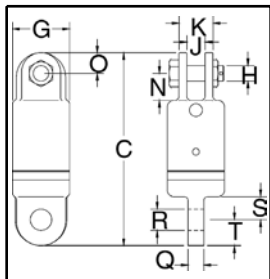
\* Individually Proof Tested to 2 times the Working Load Limit. Ultimate Load is 5 times the Working Load Limit.



## S-2 Jaw & Jaw

Swivel No.	S-2 Stock No.	Working Load Limit (t)*	Wire Rope Size (mm)	Weight Each (kg)	Dimensions (mm)						
					B	G	H	J	K	N	O
3-S-2	297020	3	13	4.37	236	70.0	19.1	22.4	41.1	33.3	25.4
5-S-2	297226	5	16	6.21	262	76.0	22.4	25.4	57.0	41.1	28.4
8-S-2	297422	8-1/2	19	11.9	321	102	25.4	39.5	71.5	54.0	35.1
10-S-2	297627	10	22	20.8	426	114	38.1	44.5	86.0	89.0	44.5
15-S-2	297823	15	26	28.5	435	127	38.1	44.5	86.0	89.0	44.5
25-S-2	298127	25	-	64	527	152	51.0	51.0	117	93.5	60.5
35-S-2	298225	35	-	70	527	165	51.0	51.0	117	93.5	60.5
45-S-2	298323	45	-	107	641	178	57.0	63.5	127	102	76.0

\* Individually Proof Tested to 2 times the Working Load Limit. Ultimate Load is 5 times the Working Load Limit.

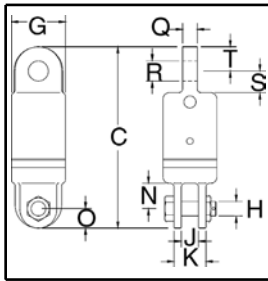


## S-3 Jaw & Eye

Swivel No.	S-3 Stock No.	Working Load Limit (t)*	Wire Rope Size (mm)	Weight Each (kg)	Dimensions (mm)										
					C	G	H	J	K	N	O	Q	R	S	T
3-S-3	297039	3	13	4.14	237	70.0	19.1	22.4	41.1	33.3	25.4	19.1	26.2	28.4	31.8
5-S-3	297235	5	16	6.12	256	76.0	22.4	25.4	57.0	41.1	28.4	25.4	32.5	31.8	31.8
8-S-3	297431	8-1/2	19	11.3	311	102	25.4	39.5	71.5	54.0	35.1	31.8	35.8	41.1	38.1
10-S-3	297636	10	22	19.7	409	114	38.1	44.5	86.0	89.0	44.5	42.9	42.9	70.0	47.8
15-S-3	297832	15	26	27.7	425	127	38.1	44.5	86.0	89.0	44.5	49.3	51.5	70.0	54.0
25-S-3	298136	25	-	61	546	152	51.0	51.0	117	93.5	60.5	57.0	58.5	98.5	60.5
35-S-3	298234	35	-	68	546	165	51.0	51.0	117	93.5	60.5	57.0	58.5	98.5	60.5
45-S-3	298332	45	-	102	657	178	57.0	63.5	127	102	76.0	63.5	64.5	102	76.0

\* Individually Proof Tested to 2 times the Working Load Limit. Ultimate Load is 5 times the Working Load Limit.

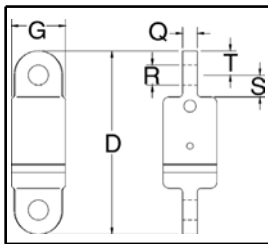
# Crosby® Swivels



## S-4 Eye & Jaw

Swivel No.	S-4 Stock No.	Working Load Limit (t)*	Wire Rope Size (mm)	Weight Each (kg)	Dimensions (mm)										
					C	G	H	J	K	N	O	Q	R	S	T
3-S-4	297048	3	13	4.08	237	70.0	19.1	22.4	41.1	33.3	25.4	19.1	26.2	28.4	31.8
5-S-4	297244	5	16	5.60	256	76.0	22.4	25.4	57.0	41.1	28.4	25.4	32.5	31.8	31.8
8-S-4	297440	8-1/2	19	13.2	311	102	25.4	39.5	71.5	54.0	35.1	31.8	35.8	41.1	38.1
10-S-4	297645	10	22	20.0	409	114	38.1	44.5	86.0	89.0	44.5	42.9	42.9	70.0	47.8
15-S-4	297841	15	26	27.7	425	127	38.1	44.5	86.0	89.0	44.5	49.3	51.5	70.0	54.0
25-S-4	298145	25	-	61	546	152	51.0	51.0	117	93.5	60.5	57.0	58.5	98.5	60.5
35-S-4	298243	35	-	68	546	165	51.0	51.0	117	93.5	60.5	57.0	58.5	98.5	60.5
45-S-4	298341	45	-	102	657	178	57.0	63.5	127	102	76.0	63.5	64.5	102	76.0

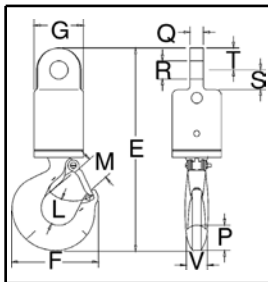
\* Individually Proof Tested to 2 times the Working Load Limit. Ultimate Load is 5 times the Working Load Limit.



## S-5 Eye & Eye

Swivel No.	S-5 Stock No.	Working Load Limit (t)*	Wire Rope Size (mm)	Weight Each (kg)	Dimensions (mm)					
					D	G	Q	R	S	T
3-S-5	297057	3	13	3.86	239	70.0	19.1	26.2	28.4	31.8
5-S-5	297253	5	16	5.13	249	76.0	25.4	32.5	31.8	31.8
8-S-5	297459	8-1/2	19	13.3	302	102	31.8	35.8	41.1	38.1
10-S-5	297654	10	22	19.1	394	114	42.9	42.9	70.0	47.8
15-S-5	297850	15	26	22.2	416	127	49.3	51.5	70.0	54.0
25-S-5	298154	25	-	59	565	152	57.0	58.5	98.5	60.5
35-S-5	298252	35	-	66	565	165	57.0	58.5	98.5	60.5
45-S-5	298350	45	-	98	673	178	63.5	64.5	102	76.0

\* Individually Proof Tested to 2 times the Working Load Limit. Ultimate Load is 5 times the Working Load Limit.



## S-6 Eye & Hook

Swivel No.	S-6 Stock No.	Working Load Limit (t)*	Wire Rope Size (mm)	Weight Each (kg)	Dimensions (mm)										
					E	F	G	L	M	P	Q	R	S	T	V
3-S-6	297066	3	13	4.23	292	123	70.0	38.9	35.8	36.6	19.1	26.2	28.4	31.8	28.4
5-S-6	297262	5	16	6.46	332	160	76.0	49.3	42.9	46.0	25.4	32.5	31.8	31.8	36.6
8-S-6	297468	8-1/2	19	14.5	408	192	102	62.5	56.5	57.0	31.8	35.8	41.1	38.1	41.1
10-S-6	297663	10	22	20.6	486	212	114	66.0	61.0	66.0	42.9	42.9	70.0	47.8	49.3
15-S-6	297869	15	26	28.6	540	263	127	71.5	81.0	76.0	49.3	51.5	70.0	54.0	60.5
25-S-6	298163	25	-	61	699	346	152	87.5	92.0	93.0	57.0	58.5	98.5	60.5	76.0
35-S-6	298261	35	-	98	780	357	165	98.5	95.5	116	57.0	58.5	98.5	60.5	81.0
45-S-6	298369	45	-	122	907	392	178	121	108	129	63.5	64.5	102	76.0	82.5

\* Individually Proof Tested to 2 times the Working Load Limit. Ultimate Load is 5 times the Working Load Limit.

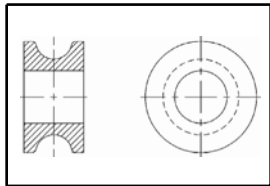
# Crosby® Swivels



## ANGULAR CONTACT BEARING SWIVELS



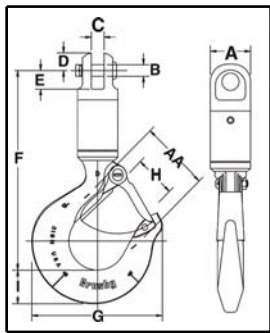
- Wide range of product available.
  - Capacity: 0.40 through 31.5 tonnes
  - Wire Rope Sizes: 3 mm through 38 mm
- Angular contact bearings maximize efficiency, reliability and service life of swivel and extend the life of the wire rope.
- Designed for high rotation speed: Lower torque required to initiate rotation.
- Individually Proof Tested to 2 times the Working Load Limit with certification.
- Hook models utilize genuine Crosby hooks which are forged alloy steel, Quenched and Tempered and contain patented QUIC-CHECK® markings.
- Design Factor of 5 to 1.
- Entire swivel is Zinc plated to resist corrosion.
- Each swivel, 7.65 tonnes and larger is furnished with a pressure lubrication fitting.



### AS-20 Thimble Insert

- When terminating with wire rope clips, we recommend the use of the Thimble Insert. The result will be extended wire rope life.
  - Allows standard swivel to be used in application requiring a thimble fitting.
  - For use with our Bullet Style (AS-7) and Jaw Style (AS-1, AS-2, AS-3 & AS-4) swivels.
  - Machined from carbon steel. Zinc plated.

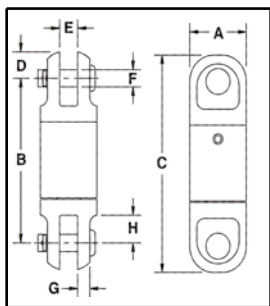
Wire Rope Size (mm)	AS-20 Stock No.
13	1038200
16	1038209
19	1038218
22-25	1038227
28-32	1038236
38	1038245



### AS-1 Jaw & Hook

AS-1 JAW & HOOK				Dimensions (mm)									Deformation Indicator AA
Working Load Limit (t)*	Wire Line Size (mm)	AS-1 Stock No.	Weight Each (kg)	A	B	C	D	E	F	G	H	I	
.40	3	1016001	.32	22.4	6.35	6.35	9.65	10.4	110	72.5	23.6	18.5	38.1
.68	6	1016010	.68	33.3	9.65	7.85	11.2	14.2	138	80.0	24.6	21.3	38.1
1.35	10	1016025	1.04	41.4	12.7	12.7	17.5	19.8	161	102	29.5	29.0	38.1
2.70	13	1016026	2.95	51.0	19.1	19.1	23.9	30.2	221	123	35.8	36.6	63.5
4.50	16	1016040	5.85	63.5	22.4	25.4	28.7	38.9	272	160	42.9	46.2	76.0
7.65	19	1016045	12.0	76.0	30.2	39.5	34.0	53.0	347	212	61.0	66.0	102
9.00	22	1016056	24.0	102	38.1	44.5	44.5	89.0	456	263	81.0	76.0	127
13.5	25	1016064	24.0	102	38.1	44.5	44.5	89.0	456	263	81.0	76.0	127
22.5	32	1016075	44.0	127	51.0	51.0	60.5	93.5	530	346	82.5	92.0	165
31.5	38	1016082	63.5	127	51.0	51.0	60.5	93.5	610	357	76.0	116	178

\* Ultimate Load is 5 times the Working Load Limit.



### AS-2 Jaw & Jaw

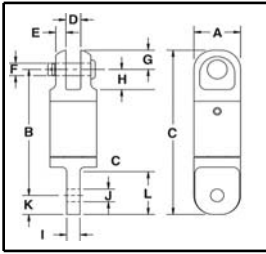
AS-2 JAW & JAW				Dimensions (mm)							
Working Load Limit (t)*	Wire Line Size (mm)	AS-2 Stock No.	Weight Each (kg)	A	B	C	D	E	F	G	H
.40	3	1016103	.18	22.4	60.5	79.5	9.65	6.35	6.35	4.80	10.4
.68	6	1016114	.41	33.3	90.0	113	11.2	7.85	9.65	5.60	14.2
1.35	10	1016122	.91	41.4	103	138	17.5	12.7	12.7	7.10	19.8
2.70	13	1016131	2.22	51.0	159	207	23.9	19.1	19.1	9.65	30.2
4.50	16	1016139	4.35	63.5	197	270	28.7	25.4	22.4	13.5	38.9
7.65	19	1016148	7.17	76.0	245	313	34.0	39.5	30.2	14.2	53.0
9.00	22	1016157	18.1	102	356	445	44.5	44.5	38.1	20.6	89.0
13.5	25	1016166	18.1	102	356	445	44.5	44.5	38.1	20.6	89.0
22.5	32	1016175	35.4	127	405	526	60.5	51.0	51.0	28.7	93.5
31.5	38	1016184	35.4	127	405	526	60.5	51.0	51.0	28.7	93.5

\* Ultimate Load is 5 times the Working Load Limit.

# Crosby® Swivels

Hooks & Swivels

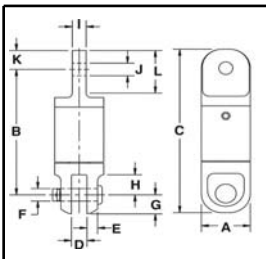
## AS-3 Jaw & Eye



AS-3 JAW & EYE				Dimensions (mm)											
Working Load Limit (t)*	Wire Line Size (mm)	AS-3 Stock No.	Weight Each (kg)	A	B	C	D	E	F	G	H	I	J	K	L
.40	3	1016205	.14	22.4	63.5	82.5	6.35	4.80	6.35	9.65	10.4	6.35	6.35	9.65	21.3
.68	6	1016216	.41	33.3	93.5	116	7.85	5.60	9.65	11.2	14.2	7.85	9.65	11.0	22.4
1.35	10	1016224	.86	41.4	106	138	12.7	7.10	12.7	17.5	19.8	12.7	16.8	16.0	35.1
2.70	13	1016232	2.09	51.0	157	207	19.1	9.65	19.1	23.9	30.2	19.1	23.1	25.0	51.0
4.50	16	1016243	4.13	63.5	200	259	25.4	13.5	22.4	28.7	38.1	25.4	31.8	30.0	67.0
7.65	19	1016250	7.08	76.0	241	311	39.5	14.2	31.8	34.0	53.0	31.8	35.8	38.0	79.5
9.00	22	1016259	17.7	102	349	440	44.5	20.6	38.1	44.5	89.0	51.0	41.4	46.0	119
13.5	25	1016268	18.1	102	341	440	44.5	20.6	38.1	44.5	89.0	51.0	51.0	54.0	119
22.5	32	1016277	35.4	127	406	527	51.0	28.7	51.0	60.5	93.5	57.0	58.5	61.0	133
31.5	38	1016286	35.4	127	406	527	51.0	28.7	51.0	60.5	93.5	57.0	58.5	61.0	133

\* Ultimate Load is 5 times the Working Load Limit.

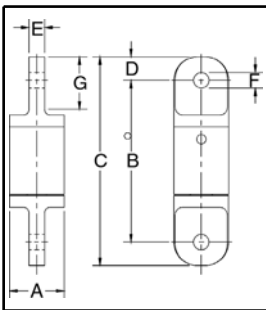
## AS-4 Eye & Jaw



AS-4 EYE & JAW				Dimensions (mm)											
Working Load Limit (t)*	Wire Line Size (mm)	AS-4 Stock No.	Weight Each (kg)	A	B	C	D	E	F	G	H	I	J	K	L
.40	3	1016306	.14	22.4	63.5	82.5	6.35	4.80	6.35	9.65	10.4	6.35	6.35	9.65	20.6
.68	6	1016314	.41	33.3	92.0	116	7.85	5.60	9.65	11.2	14.2	7.85	9.65	11.0	22.4
1.35	10	1016325	.86	41.4	106	140	12.7	7.10	12.7	17.5	19.8	12.7	16.8	16.0	34.0
2.70	13	1016332	2.09	51.0	157	207	19.1	9.65	19.1	23.9	30.2	19.1	23.1	25.4	51.0
4.50	16	1016343	4.13	63.5	200	259	25.4	13.5	22.4	28.7	36.6	25.4	31.8	30.2	67.0
7.65	19	1016352	7.12	76.0	240	311	39.5	14.2	30.2	34.0	53.0	31.8	35.8	38.1	79.5
9.00	22	1016361	17.7	102	359	451	44.5	20.6	38.1	44.5	89.0	43.7	42.2	46.0	119
13.5	25	1016370	18.1	102	351	451	44.5	20.6	38.1	44.5	89.0	51.0	51.5	54.0	119
22.5	32	1016375	34.0	127	405	527	51.0	28.7	51.0	60.5	93.5	57.0	58.5	60.5	133
31.5	38	1016379	34.0	127	405	527	51.0	28.7	51.0	60.5	93.5	57.0	58.5	60.5	133

\* Ultimate Load is 5 times the Working Load Limit.

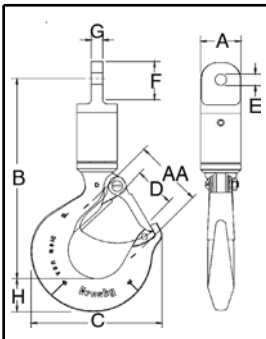
## AS-5 Eye & Eye



AS-5 EYE & EYE				Dimensions (mm)						
Working Load Limit (t)*	Wire Line Size (mm)	AS-5 Stock No.	Weight Each (kg)	A	B	C	D	E	F	G
.40	3	1016409	.14	22.4	67.0	86.0	9.65	6.35	6.35	20.6
.68	6	1016418	.41	33.3	95.0	118	11.2	7.85	9.65	22.4
1.35	10	1016427	.82	41.4	110	141	16.0	12.7	16.8	34.0
2.70	13	1016436	1.95	51.0	156	207	25.4	19.1	23.1	51.0
4.50	16	1016445	3.90	63.5	197	270	30.2	25.4	31.8	67.0
7.65	19	1016454	7.00	76.0	237	313	38.1	31.8	35.8	79.5
9.00	22	1016463	16.8	102	353	445	46.0	43.7	41.4	119
13.5	25	1016472	17.7	102	337	445	54.0	51.0	54.0	119
22.5	32	1016481	32.7	127	406	527	60.5	57.0	58.5	133
31.5	38	1016490	32.7	127	457	527	60.5	57.0	58.5	133

\* Ultimate Load is 5 times the Working Load Limit.

## AS-6 Eye & Hook

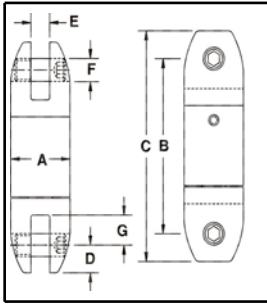


AS-6 EYE & HOOK				Dimensions (mm)										Deformation Indicator AA
Working Load Limit (t)*	Wire Line Size (mm)	AS-6 Stock No.	Weight Each (kg)	A	B	C	D	E	F	G	H			
.40	3	1016502	.32	22.4	111	72.5	23.6	6.35	20.6	6.35	18.5	38.1		
.68	6	1016513	.68	33.3	141	80.0	24.6	9.65	22.4	7.85	21.3	38.1		
1.35	10	1016520	1.32	41.4	158	102	29.5	16.8	34.0	12.7	29.0	51.0		
2.70	13	1016529	2.81	51.0	219	123	35.8	23.1	51.0	19.1	36.6	63.5		
4.50	16	1016538	5.62	63.5	274	160	42.9	31.8	67.0	25.4	46.2	76.0		
7.65	19	1016547	10.7	76.0	343	212	61.0	35.6	79.5	31.8	66.0	102		
9.00	22	1016556	23.6	102	459	263	81.0	42.2	119	43.7	76.0	127		
13.5	25	1016565	24.0	102	448	263	81.0	51.5	119	51.0	76.0	127		
22.5	32	1016574	42.6	127	530	346	82.5	59.0	133	57.0	92.0	165		
31.5	38	1016583	62.6	127	610	357	76.0	59.0	133	57.0	116	178		

\* Ultimate Load is 5 times the Working Load Limit.

# Crosby® Swivels

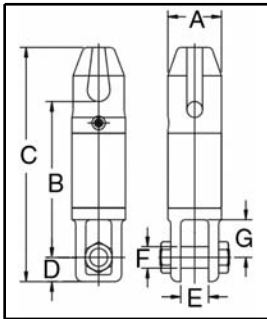
## AS-7 Bullet Style Jaw & Jaw



AS-7 BULLET STYLE JAW & JAW				Dimensions (mm)						
Working Load Limit (t)*	Wire Line Size (mm)	AS-7 Stock No.	Weight Each (kg)	A	B	C	D	E	F	G
.40	3	1016604	.18	22.4	60.5	79.5	9.65	6.35	7.85	10.2
.68	6	1016611	.50	33.3	90.0	113	11.2	7.85	9.65	14.2
1.35	10	1016622	.82	41.4	103	132	14.2	12.7	11.2	20.6
2.70	13	1016631	1.72	51.0	138	179	20.6	19.1	16.0	23.9
4.50	16	1016640	3.63	63.5	197	256	28.7	25.4	22.4	39.5
7.65	19	1016649	6.58	76.0	251	314	31.8	33.3	25.4	54.0
9.00	22	1016652	18.1	102	334	425	44.5	44.5	38.1	82.5
13.5	25	1016658	18.1	102	334	425	44.5	44.5	38.1	82.5
22.5	32	1016662	38.1	127	405	527	60.5	51.0	51.0	93.5
31.5	38	1016667	38.1	127	405	527	60.5	51.0	51.0	93.5

\* Ultimate Load is 5 times the Working Load Limit.

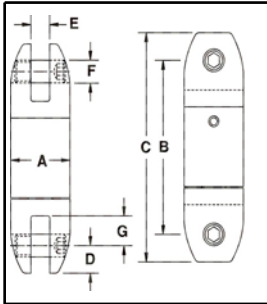
## AS-11 Thimble & Jaw



AS-11 THIMBLE & JAW				Dimensions (mm)						
Working Load Limit (t)*	Wire Line Size (mm)	AS-11 Stock No.	Weight Each (kg)	A	B	C	D	E	F	G
7.65	19	1017020	12.0	76.2	22.0	330	34.0	39.6	30.2	53.1
13.5	25	1017029	24.0	102	296	445	44.5	45.0	38.1	89.0

\* Ultimate Load is 5 times the Working Load Limit.

## AS-17 Bullet Style Jaw & Jaw Slurry Swivel



- The Crosby AS-17 Slurry Swivel is a zinc plated Bullet Type Swivel (AS-7), designed with two rubber lip style seals about the shaft. The threaded cap is sealed with a silicone sealant and secured with a set screw. The swivels are provided with an Alemite grease fitting for easy lubrication.

AS-17 BULLET JAW SLURRY SWIVEL				Dimensions (mm)						
Working Loadn Limit (t)*	Wire Line Size (mm)	AS-17 Stock No.	Weight Each (kg)	A	B	C	D	E	F	G
7.65	19	8013342	6.57	76.2	257	321	31.8	33.3	25.4	54.1
13.5	25	8013343	18.1	102	343	432	44.5	44.5	38.1	82.5
22.5	32	8013376	38.1	127	410	531	60.5	51.0	51.0	93.7
31.5	38	8013344	38.1	127	410	531	60.5	51.0	51.0	93.7

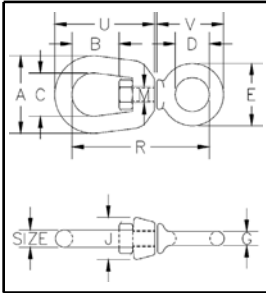
\* Ultimate Load is 5 times the Working Load Limit.

# Crosby® Forged Swivels



- FORGED SWIVELS**
- Hot dip Galvanized
  - Quenched & Tempered

401, 402 and 403 swivels are positioning devices and are not intended to rotate under load. For load swivels see pages 106-110.

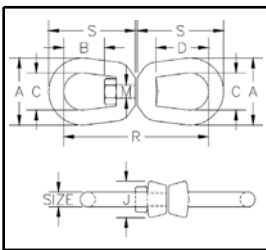


## G-401 Chain Swivels

- Meets the performance requirements of Federal Specification RR-C-271D, Type VII, Class 1, except for those provisions required of the contractor.

Size (mm)	G-401 Stock No.	Working Load Limit (t)*	Weight Each (kg)	Dimensions (mm)										
				A	B	C	D	E	G	J	M	R	U	V
6	1016233	.39	.06	31.8	17.5	19.1	15.7	28.4	6.35	17.5	7.85	57.0	42.9	31.8
8	1016251	.57	.11	6.35	41.4	20.6	25.4	19.1	35.1	7.85	20.6	69.0	52.5	37.3
10	1016279	1.02	.24	51.0	23.9	31.8	25.4	44.5	9.65	25.4	12.7	87.5	63.5	47.8
13	1016297	1.63	.51	63.5	33.3	38.1	31.8	57.0	12.7	33.3	16.0	108	81.0	62.0
16	1016313	2.36	.95	76.2	39.6	44.5	38.1	70.0	15.8	38.1	19.1	130	98.5	74.5
19	1016331	3.27	1.40	89.0	44.5	51.0	44.5	82.5	19.1	47.8	22.4	147	125	88.0

\* Ultimate Load is 5 times the Working Load Limit.

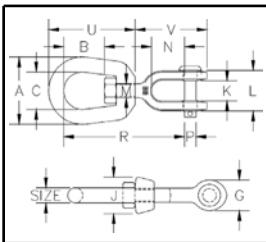


## G-402 Regular Swivels

- Meets the performance requirements of Federal Specification RR-C-271D, Type VII, Class 2, except for those provisions required of the contractor.

Size (mm)	G-402 Stock No.	Working Load Limit (t)*	Weight Each (kg)	Dimensions (mm)							
				A	B	C	D	J	M	R	S
6	1016019	.39	.10	31.8	17.5	19.1	26.9	17.5	7.85	74.5	42.9
8	1016037	.57	.18	41.4	20.6	25.4	31.8	20.6	9.65	90.0	52.0
10	1016055	1.02	.32	51.0	23.9	31.8	38.1	25.4	12.7	109	63.5
13	1016073	1.63	.60	63.5	33.3	38.1	51.0	33.3	16.0	138	81.0
16	1016091	2.36	1.13	76.0	39.5	44.5	60.5	38.1	19.1	167	98.5
19	1016117	3.27	1.82	89.0	44.5	51.0	67.0	47.8	22.4	183	109
22	1016135	4.54	2.83	102	52.0	57.0	77.5	54.0	25.4	213	127
25	1016153	5.67	4.06	114	58.5	63.5	89.0	60.5	28.7	245	146
32	1016199	8.16	7.42	143	68.5	79.5	93.5	76.0	41.4	291	172
38	1016215	20.5	20.8	178	98.5	102	106	102	57.0	435	254

\* Ultimate Load is 5 times the Working Load Limit.



## G-403 Jaw End Swivels

- Meets the performance requirements of Federal Specification RR-C-271D, Type VII, Class 3, except for those provisions required of the contractor.
- U.S. Patent 5,381,650 and other equivalents.

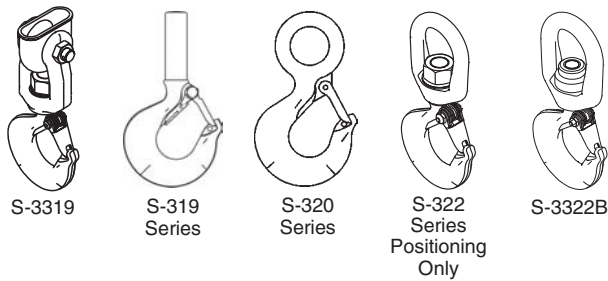
Size (mm)	G-403 Stock No.	Working Load Limit (t)*	Weight Each (kg)	Dimensions (mm)												
				A	B	C	G	J	K	L	M	N	P	R	U	V
6	1016395	.39	.10	31.8	17.5	19.1	17.5	17.5	11.9	26.2	7.85	22.4	6.35	67.0	42.9	42.9
8	1016411	.57	.15	41.4	20.6	25.4	20.6	20.6	12.7	28.7	9.65	22.4	7.85	74.5	52.0	46.0
10	1016439	1.02	.30	51.0	23.9	31.8	25.4	25.4	16.0	35.8	12.7	26.9	9.65	92.0	63.5	57.0
13	1016457	1.63	.61	63.5	33.3	38.1	33.3	33.3	19.1	44.5	16.0	33.3	12.7	114	81.0	73.0
16	1016475	2.36	1.12	76.0	39.5	44.5	41.4	38.1	23.9	52.0	19.1	38.1	16.0	135	98.5	87.5
19	1016493	3.27	1.76	89.0	44.5	51.0	47.8	47.8	28.7	64.5	22.4	44.5	19.1	154	109	102
22	1016518	4.54	2.66	102	52.0	57.0	54.0	54.0	30.2	70.0	25.4	52.0	22.4	178	127	115
25	1016536	5.67	4.46	114	58.5	63.5	67.0	60.5	44.5	94.5	28.7	71.5	28.7	217	146	151
32	1016572	8.16	7.14	145	68.5	79.5	79.5	76.0	52.0	109	41.4	71.5	35.1	248	179	162
38	1016590	20.5	24.8	178	98.5	102	143	102	73.0	152	57.0	113	57.0	374	254	275

\* Ultimate Load is 5 times the Working Load Limit.

Hooks & Swivels

# CROSBY HOIST HOOK

## WARNINGS AND APPLICATION INSTRUCTIONS



### Important Safety Information - Read and Follow

- A visual periodic inspection for cracks, nicks, wear, gouges and deformation as part of a comprehensive documented inspection program, should be conducted by trained personnel in compliance with the schedule in ANSI B30.10.
- For hooks used in frequent load cycles or pulsating loads, the hook and threads should be periodically inspected by Magnetic Particle or Dye Penetrant. (Note: Some disassembly may be required.)
- Never use a hook whose throat opening has been increased, or whose tip has been bent more than 10 degrees out of plane from the hook body, or is in any other way distorted or bent. **Note: A latch will not work properly on a hook with a bent or worn tip.**
- Never use a hook that is worn beyond the limits shown in Figure 1.
- Remove from service any hook with a crack, nick, or gouge. Hooks with a crack, nick, or gouge shall be repaired by grinding lengthwise, following the contour of the hook, provided that the reduced dimension is within the limits shown in Figure 1.
- Never repair, alter, rework, or reshape a hook by welding, heating, burning, or bending.
- Never side load, back load, or tip load a hook. (Side loading, back loading and tip loading are conditions that damage and reduce the capacity of the hook). (See Figure 2.)
- Eye hooks, shank hooks and swivel hooks are designed to be used with wire rope or chain. Efficiency of assembly may be reduced when used with synthetic material.
- Do not swivel the S-322 swivel hook while it is supporting a load. *The S-322 is distinguishable by hex nut and flat washers.*
- The S-3322 swivel hook is designed to rotate under load. *The S-3322 is distinguishable from the S-322 by use of a round nut designed to shield bearing.*
  - The frequency of bearing lubrication on the S-3322 depends upon frequency and period of product use as well as environmental conditions, which are contingent upon the user's good judgement.
- The use of a latch may be mandatory by regulations or safety codes; e.g., OSHA, MSHA, ANSI/ASME B30, Insurance, etc.. (Note: When using latches, see instructions in "Understanding: The Crosby Group Warnings" for further information.)
- Always make sure the hook supports the load. (See Figure 3). The latch must never support the load (See Figure 4).

WARNING

- Loads may disengage from hook if proper procedures are not followed.
- A falling load may cause serious injury or death.
- See OSHA Rule 1926.550(g) for personnel hoisting by cranes and derricks, and OSHA Directive CPL 2-1.29 — Interim Inspection Procedures During Communication Tower Construction Activities. A Crosby 319, 320 or 322 hook with a PL latch attached and secured with a bolt, nut and cotter pin (or toggle pin) may be used for lifting personnel. A Crosby 319N, 320N or 322N hook with an S-4320 latch attached and secured with cotter pin or bolt, nut and pin; or a PL-N latch attached and secured with toggle pin may be used for lifting personnel. A hook with a Crosby SS-4055 latch attached shall NOT be used for personnel lifting.
- See OSHA Directive CPL 2-1.29 — Crosby does not recommend the placement of lanyards directly into the positive locking Crosby hook when hoisting personnel. Crosby requires that all suspension systems (vertical lifelines / lanyard) shall be gathered at the positive locked load hook by use of a master link, or a bolt-type shackle secured with cotter pin.
- Threads may corrode and/or strip and drop the load.
- Remove securement nut to inspect or to replace S-322 bearing washers (2).
- Hook must always support the load. The load must never be supported by the latch.
- Never apply more force than the hook's assigned Working Load Limit (WLL) rating.
- Read and understand these instructions before using hook.

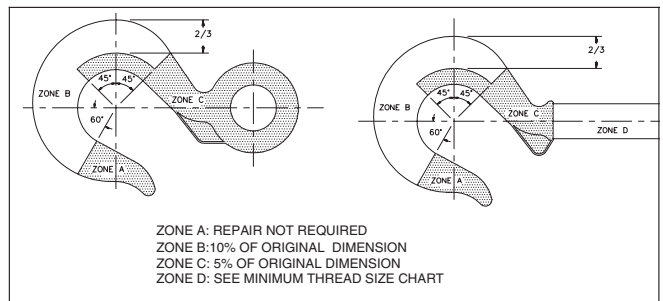


Figure 1

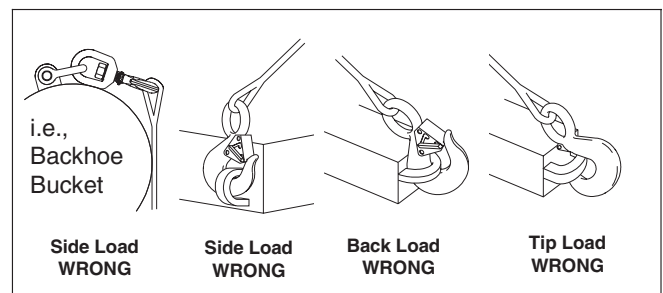


Figure 2

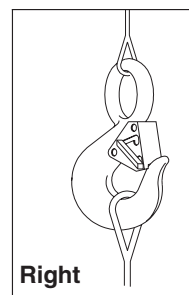


Figure 3

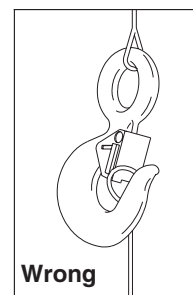


Figure 4

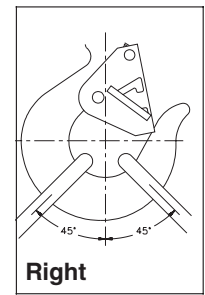
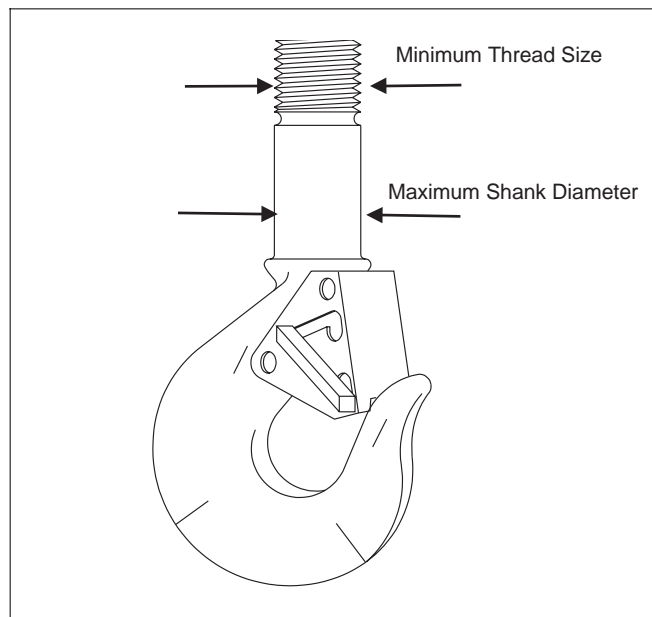


Figure 5

# Read and Understand These Instructions Before Using Hooks

## Important — Basic Machining and Thread Information Read and Follow

- Wrong thread and/or shank size can cause stripping and loss of load.
- The maximum diameter is the largest diameter, after cleanup, that could be expected after allowing for straightness, pits, etc.
- All threads must be Class 2 or better.
- The minimum thread length engaged in the nut should not be less than one (1) thread diameter.
- Hook shanks are not intended to be swaged on wire rope or rod. See S319SWG for hook designed for swaging.
- Hook shanks are not intended to be drilled (length of shank) and internally threaded.
- Crosby can not assume responsibility for, (A) the quality of machining, (B) the type of application, or (C) the means of attachment to the power source or load.
- Consult the Crosby Hook Identification & Working Load Limit Chart (See below) for the minimum thread size for assigned Working Load Limits (WLL).<sup>†</sup>
- Remove from service any Hook which has threads corroded more than 20% of the nut engaged length.



## Crosby Hook Identification & Working Load Limit Chart<sup>†</sup>

Hook Identification			Working Load Limit <sup>t</sup>				Maximum Shank Diameter after Machining (mm)	Minimum Thread Size	
319-C 319-CN 320-C 320-CN 322-C 322-CN	319-A 319-AN 320-A 320-AN 322-A 322-AN	319-BN	319-C 319-CN 320-C 320-CN 322-C 322-CN	319-A 319-AN 320-A 320-AN 322-A 322-AN	319-BN	319-C 319-CN (Carbon)		319-A 319-AN (Alloy) 319-BN (Bronze)	
DC	DA	DB	.75	1.25	.5	13.4	1/2-13 unc	1/2-13 unc	
FC	FA	FB	1	1.6	.6	15.7	5/8-11 unc	5/8-11 unc	
GC	GA	GB	1.6	2.5	1	16.8	5/8-11 unc	5/8-11 unc	
HC	HA	HB	2	3.2	1.4	20.6	3/4-10 unc	3/4-10 unc	
IC	IA	IB	3.2	5.4	2.0	26.2	7/8-9 unc	7/8-9 unc	
JC	JA	JB	5	8	3.5	32.3	1 1/8-7 unc	1 1/8-7 unc	
KC	KA	KB	7.5	11.5	5.0	38.6	1 1/4-7 unc	1 3/8-6 unc	
LC	LA	LB	10	16	6.5	44.5	1 5/8-8 un	1 5/8-8 un	
NC	NA	NB	15	22	10	50.8	2-8 un	2-8 un	
OC	OA	—	20	30	—	63.5	2 1/4-8 un	2 1/4-8 un	
PC	PA	—	25	37	—	89.0	2 3/4-8 un	2 3/4-8 un	
SC	SA	—	30	45	—	89.0	3-8 un	3-8 un	
TC	TA	—	40	60	—	102	3 1/4-8 un	3 1/2-8 un	
UC	UA	—	50	75	—	114	3 3/4-8 un	4-4 unc	
—	WA	—	—	100	—	155	—	4 1/2-8 un	
—	XA	—	—	150	—	162	—	5 1/2-8 un	
—	YA	—	—	200	—	178	—	6 1/4-8 un	
—	ZA	—	—	300	—	219	—	7 1/2-8 un	

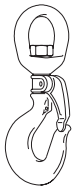
\*319AN, 320-AN, and 322AN, 3322 are rated at 5 tonnes

<sup>†</sup> Working Load Limit - The maximum mass or force which the product is authorized to support in general service when the pull is applied in-line, unless noted otherwise, with respect to the centerline of the product. This term is used interchangeably with the following terms:

1. WLL 2. Rated Load Value 3. SWL 4. Safe Working Load 5. Resultant Safe Working Load.

# CROSBY / BULLARD GOLDEN GATE<sup>®</sup> HOOK

## WARNING AND APPLICATION INSTRUCTIONS



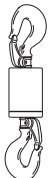
BL-A  
BL-C



BL-B  
BL-D



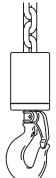
BL-I  
BL-K



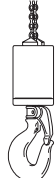
BL-PKU



BL-G  
BL-E



BL-P  
BL-O



BL-R  
BL-S

**QUIC-CHECK<sup>®</sup>** Hoist Hooks incorporate markings forged into the product which address two (2) **QUIC-CHECK<sup>®</sup>** features:

**Deformation Indicators** - Two strategically placed marks, one just below the shank or eye and the other on the hook tip, which allows for a **QUIC-CHECK<sup>®</sup>** measurement to determine if the throat opening has changed, thus indicating abuse or overload.

**To check**, use a measuring device (i.e., tape measure) to measure the distance between the marks. The marks should align to either an inch or half-inch increment on the measuring device. If the measurement does not meet criteria, the hook should be inspected further for possible damage.

**Angle Indicators** - Indicates the maximum included angle which is allowed between two (2) sling legs in the hook. These indicators also provide the opportunity to approximate other included angles between two sling legs.



### Important Safety Information - Read and Follow

- A visual periodic inspection for cracks, nicks, wear, gouges and deformation as part of a comprehensive documented inspection program, should be conducted by trained personnel in compliance with the schedule in ANSI B30. 10.
- For hooks used in frequent load cycles or pulsating loads, the hook and threads should be periodically inspected by Magnetic Particle or Dye Penetrant. (Note: Some disassembly may be required.)
- See WARNING box and Figure 6 for special instructions for securing the nut to the shank at assembly.
- Never use a hook whose throat opening has been increased, or whose tip has been bent more than 10 degrees out of plane from the hook body, or is in any other way distorted or bent. **Note: A gate will not work properly on a hook with a bent or worn tip.**
- Manual - closing gates must be completely closed for the lock to work.
- Never use a hook that is worn beyond the limits shown in Figure 1.
- Remove from service any hook with a crack, nick, or gouge. Hooks with a crack, nick, or gouge shall be repaired by grinding lengthwise, following the contour of the hook, provided that the reduced dimension is within the limits shown in Figure 1.

**WARNING**

- Loads may disengage from hook if proper procedures are not followed.
- A falling load may cause serious injury or death.
- Before using, inspect the hook and gate daily to ensure it is in proper operating condition.
- Failure to properly insert the pin could result in the load falling.
- All Golden Gate<sup>®</sup> Hooks with threaded shanks require a pin to secure the nut to the shank. This pin prevents the nut from backing off or unscrewing from the threads and causing the load to drop.
- If the pin and nut are removed from the shank to replace any hook components, the pin and nut must be installed before use.

**NOTE:**

1. If a solid pin was used, the old pin "must" be discarded and a new pin inserted to secure the nut to the shank.
2. If a spring pin (coil type) was used, it may be reused provided that the spring pin and / or the drill hole was not damaged.

- The Gate is not a load-bearing device. Do not allow the slings or other loads to bear against the gate.
- Threads may corrode and/or strip and drop the load.
- Hands, fingers and body should be kept away from the hook and load whenever possible.
- Never apply more force than the hook's assigned Working Load Limit (WLL) rating.
- Read and understand these instructions before using.

- Never repair, alter, rework, or reshape a hook by welding, heating, burning, or bending.
- Never side load, back load, or tip load a hook. Side loading, back loading and tip loading are conditions that damage and reduce the capacity of the hook. (See Figure 2.)
- Eye hooks, shank hooks and swivel hooks are designed to be used with wire rope or chain. Efficiency of assembly may be reduced when used with synthetic material.

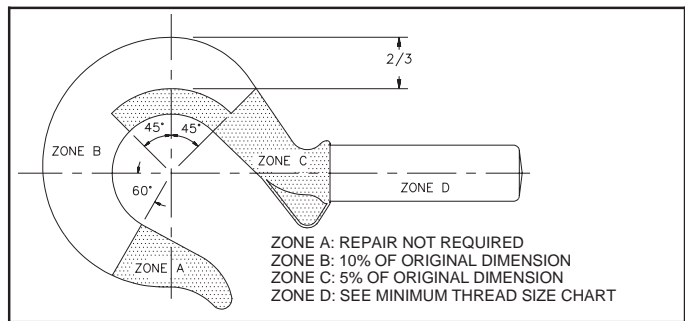


Figure 1

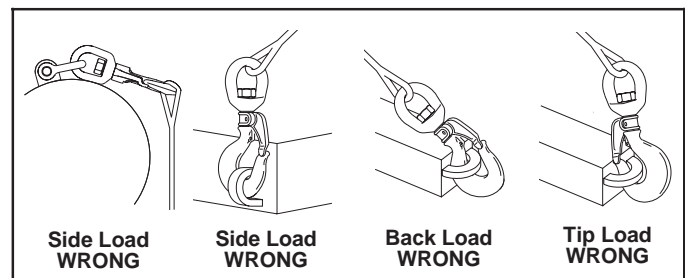


Figure 2

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- The use of a latch may be mandatory by regulations or safety codes; e.g., OSHA, MSHA, ANSI/ASME B30, Insurance etc.
- Always make sure the hook supports the load. (See Figure 3). The gate must never support the load (See Figure 4).
- When placing two (2) sling legs in hook, make sure the angle from the vertical to the outermost leg is not greater than 45 degrees, and the included angle between the legs does not exceed 90 degrees\* (See Figure 5).
- See ANSI/ASME B30.10 "Hooks" for additional information.
- If any of the following conditions exist, remove hook from service immediately and repair with genuine Crosby / Bullard Golden Gate® hook parts or replace the hook.
  - The gate does not lock in the closed position.
  - The gate is worn, deformed, inoperative, or fails to bridge the hook throat opening.
  - Load pins or bolts in the chain connectors are worn or bent.

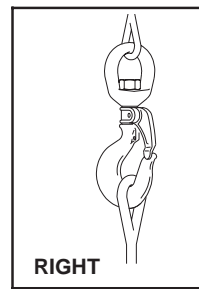


Figure 3

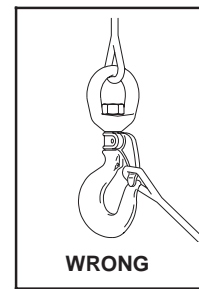


Figure 4

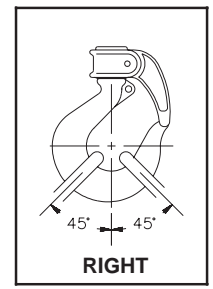


Figure 5

- When hook is used to support a hoist, the weight of the hoist must be deducted from the assigned hook Working Load Limit.
- The rated capacity of chain connector hook assemblies must equal or exceed the capacity of the hoist.

\* For two legged slings with angles greater than 90°, use an intermediate link such as a master link or bolt type shackle to collect the legs of the slings. The intermediate link can then be placed over the hook to provide an in-line load on the hook. This approach must also be used when using slings with three or more legs.

## Important — Basic Machining and Thread Information Read and Follow

- Wrong thread and/or shank size can cause stripping and loss of load.
- The maximum diameter is the largest diameter that will fit into the gate.
- All threads must be Class 2 or better.
- The minimum thread length engaged in the nut should not be less than one (1) thread diameter.
- All nuts must be secured to the shank by cross drilling the nut and threaded shank and inserting the appropriate coil type spring pin. (See WARNING box and Figure 6 for special instructions)
- Coil type spring pin must be as long as the distance across the nut flats or diameter (See Figure 6).
- Consult the Crosby / Bullard Golden Gate® Hook Identification and Working Load Limit Chart (See below) for the coil type spring pin diameter.
- Remove any hook from service that requires a larger coil type spring than that shown in the chart below.
- Hook shanks are not intended to be swaged on wire rope or rod.

- Hook shanks are not intended to be drilled and internally threaded.
- Crosby cannot assume responsibility for, (A) the quality of machining, (B) the type of application, or (C) the means of attachment to the power source or load.
- Consult the Crosby/ Bullard Golden Gate® Hook Identification & Working Load Limit Chart (See chart below) for the minimum thread size for assigned Working Load Limits(WLL).†
- Remove from service any hook which has threads corroded more than 20% of the nut engaged length.

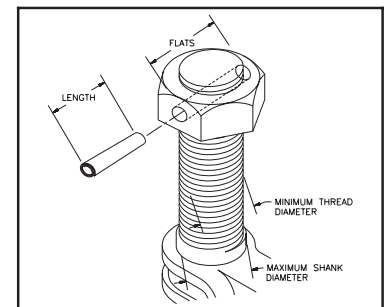


Figure 6

## Crosby / Bullard Golden Gate® Hook Identification & Working Load Limit Chart

Hook / Gate Size	Working Load Limit**† (t)	Maximum Shank Diameter (mm)	Minimum Thread Size	Spring* Pin Size (mm)	Drilled Hole Size (mm)	Hook / Gate Size	Working Load Limit (t)	Maximum Shank Diameter (mm)	Minimum Thread Size	Spring* Pin Size (mm)	Drilled Hole Size (mm)
1	.45	—	—	—	—	11	8.35	38	1½ - 6 UNC	7.9	7.8/8.10
2	.90	12.70	½ - 13 UNC	3.2	3.15/3.30	12	11.15	41.2	1⅝ - 5½ UNC	7.9	7.8/8.10
3	1.27	14.20	⅜ - 12 UNC	3.2	3.15/3.30	13	13.6	44.4	1¾ - 5 UNC	9.5	9.40/9.7
4	1.54	15.80	⅝ - 11 UNC	3.2	3.15/3.30	14	16.8	50.7	2 - 4½ UNC	9.5	9.40/9.7
5	2.09	19.00	¾ - 10 UNC	4.0	3.94/4.05	16	22.4	69.8	2¾ - 4 UNC	12.7	12.5/12.95
6	3.63	22.20	⅞ - 9 UNC	4.75	4.70/4.90	16-A	29.9	69.8	2¾ - 4 UNC	12.7	12.5/12.95
7	3.81	25.30	1 - 8 UNC	4.75	4.70/4.90	17	44.9	101.5	4 - 8 UN	19.1	18.9/19.30
8	5.00	28.50	1⅛ - 7 UNC	6.35	6.25/6.50	17-A	59.9	101.5	4 - 8 UN	19.1	18.9/19.30
9	6.53	31.70	1¼ - 7 UNC	6.35	6.25/6.50	—	—	—	—	—	—

\* Heavy Duty Coil Type Spring Pin.

\*\* Minimum ultimate strength is 4 times the Working Load Limit.

† Working Load Limit - The maximum mass or force which the product is authorized to support in general service when the pull is applied in-line, unless noted otherwise, with respect to the centerline of the product. This term is used interchangeably with the following terms: 1. WLL, 2. Rated Load Value, 3. SWL, 4. Safe Working Load, 5. Resultant Safe Working Load. Ultimate Load is 4 times the Working Load.

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# S-4320 HOOK LATCH KIT

(For Crosby 319N, 320N, and 322N, S-1320, A-339N & A-1339 Hooks)

## WARNINGS AND APPLICATION INSTRUCTIONS

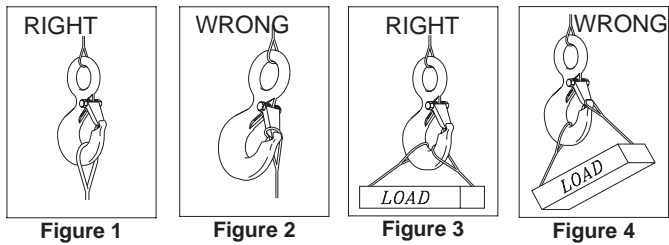
### Important Safety Information – Read & Follow

- Always inspect hook and latch before using.
- Never use a latch that is distorted or bent.
- Always make sure spring will force the latch against the tip of the hook.
- Always make sure hook supports the load. The latch must never support the load. (See Figure 1 & 2.)
- When placing two (2) sling legs in hook, make sure the angle between the legs is less than 90° and if the hook or load is tilted, nothing bears against the bottom of this latch. (See Figure 3 & 4.)
- Latches are intended to retain loose sling or devices under slack conditions.
- Latches are not intended to be an anti-fouling device.
- When using latch for personnel lifting, select proper cotter pin (See Figure 5). See Step 7 below for proper installation instructions.
  - Never reuse a bent cotter pin.
  - Never use a cotter pin with a smaller diameter or different length than recommended in Figure 5.
  - Never use a nail, a welding rod, wire, etc., in place of recommended cotter pin.
  - Always ensure cotter pin is bent so as not to interfere with sling operation.
  - Periodically inspect cotter pin for corrosion and general adequacy.



⚠ **WARNING**

- Loads may disengage from hook if proper procedures are not followed.
- A falling load may cause serious injury or death.
- Hook must always support the load. The load must never be supported by the latch.
- See OSHA Rule 1926.550 (g) for personnel hoisting by crane or Derricks. A Crosby S-319N, S-320N, S-322N, S-1320, A-339 and A-1339 Hook with an S-4320 latch attached (When secured with cotter pin) may be used for lifting personnel.
- An S-4320 Latch is only to be used with a Crosby S-319N, S-320N, S-322N, S-1320, A-339 and A-1339 Hook.
- DO NOT use this latch in applications requiring non sparking.

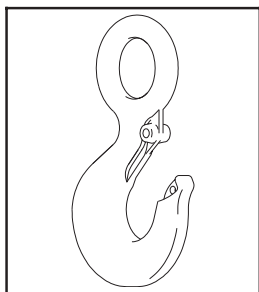


Hook Identification Code *		Recommended Cotter Pin Dimensions (mm)	
Carbon	Alloy	Diameter	Length
D	D	3.2	20
F	F	3.2	20
G	G	3.2	25
H	H	5.0	32
I	I	6.3	40
J	J	8.0	50
K	K	8.0	50
L	L	10.0	80
N	N	10.0	80

† The current SS-4055 latch kit and the PL latch will not fit new 319N, 320N, or 322N hooks. They will continue to be offered in both styles to service existing hooks. **Important** - The new S4320 latch kit will not fit the old 319, 320, or 322 hooks.

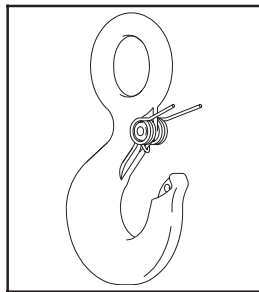
Figure 5

### IMPORTANT - Instructions for Assembling S-4320 Latch on Crosby 320N Hooks



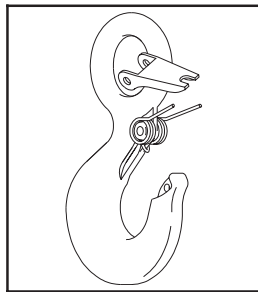
Step 1

Place hook at approximately a 45 degree angle with the cam up.



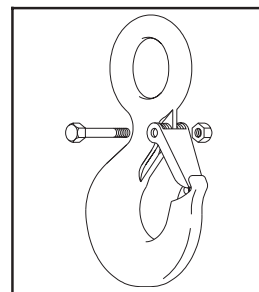
Step 2

Position coils of spring over cam with legs of spring pointing toward point of hook and loop of spring positioned down and lying against the hook.



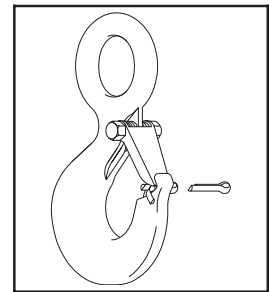
Step 3

Position latch to side of hook points. Slide latch onto spring legs between lockplate and latch body until latch is partially over hook cam. Then depress latch and spring until latch clears point of hook.



Steps 4, 5, & 6

4. Line up holes in latch with hook cam.  
5. Insert bolt through latch, spring, and cam.  
6. Tighten self-locking nut on one end of bolt.



Step 7 — For Personnel Lifting

With latch in closed position and rigging resting in bowl of hook, insert cotter pin through hook tip and secure by bending prongs.

# HOOK LATCH KIT

## WARNING AND APPLICATION INSTRUCTIONS



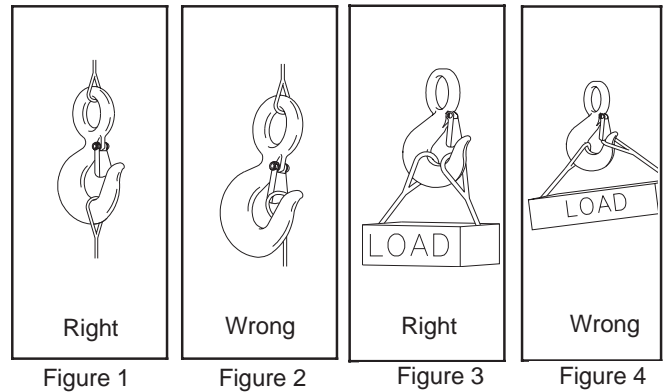
SS- 4055

### Important Safety Information - Read and Follow

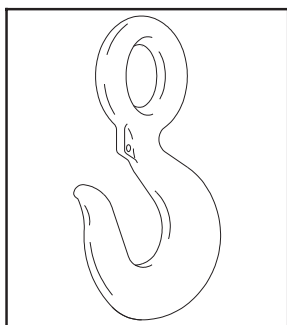
- Always inspect hook and latch before using.
- Never use a latch that is distorted or bent.
- Always make sure spring will force the latch against the tip of the hook.
- Always make sure hook supports the load. The latch must never support the load. (See Figure 1 & 2)
- When placing two (2) sling legs in hook, make sure the angle between legs is small enough and the legs are not tilted so that nothing bears against the bottom of the latch. (See Figure 3 & 4)
- Latches are intended to retain loose sling or devices under slack conditions.
- Latches are not intended to be an anti-fouling device.

**WARNING**

- Loads may disengage from hook if proper procedures are not followed.
- A falling load may cause serious injury or death.
- See OSHA Rule 1926.550(g)(4)(iv)(B). A hook and this style latch must not be used for lifting personnel.
- Hook must always support the load. The load must never be supported by the latch.
- Read and understand these instructions before using hook and latch.

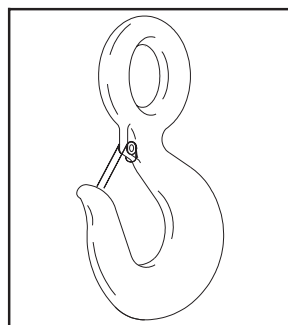


### IMPORTANT - Instructions for Assembling SS-4055 Latch on Crosby Hooks



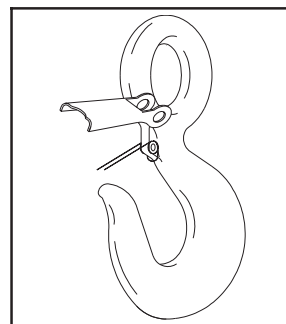
#### Step 1

Place hook at approximately a 45 degree angle with the cam up.



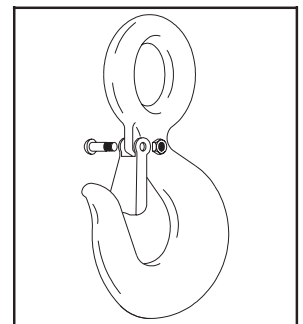
#### Step 2

Position coils of spring over cam with tines of spring pointing toward point of hook and loop of spring positioned down and lying against the hook.



#### Step 3

Position latch over tines of spring with ears partially over hook cam. Swing latch to one side of hook, point and depress latch and spring until latch clears point of hook.

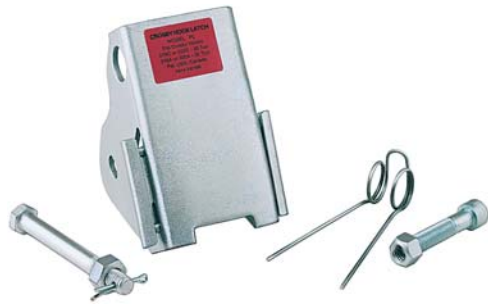


#### Steps 4, 5, & 6

4. Line up holes in latch with hook cam.
5. Insert bolt through latch, spring, and cam.
6. Tighten self-locking nut on one end of bolt.

# CROSBY® MODEL PL HOOK LATCH KIT

## WARNINGS AND APPLICATION INSTRUCTIONS



Model PL\*  
(Pat. U.S.A. & Canada)

### Important Safety Information - Read & Follow

- Always inspect hook and latch before using.
- Never use a latch that is distorted or bent.
- Always make sure spring will force the latch against the tip of the hook.
- Always make sure hook supports the load. The latch must never support the load. (See Figure 1 & 2.)
- When placing two (2) sling legs in hook, make sure the angle between the legs is less than 90° and if the hook or load is tilted, nothing bears against the bottom of this latch. (See Figure 3 & 4.)
- Latches are intended to retain loose sling or devices under slack conditions.
- Latches are not intended to be an anti-fouling device.

**⚠ WARNING**

- Loads may disengage from hook if proper procedures are not followed.
- A falling load may cause serious injury or death.
- See OSHA Rule 1926.550 (g) for Personnel Hoisting by Cranes or Derricks. A Crosby or McKissick Hook with a positive Locked PL or S-4320 Latch may be used to Lift Personnel.
- Hook must always support the load. The load must never be supported by the latch.
- Read and understand these instructions before using hook and latch.

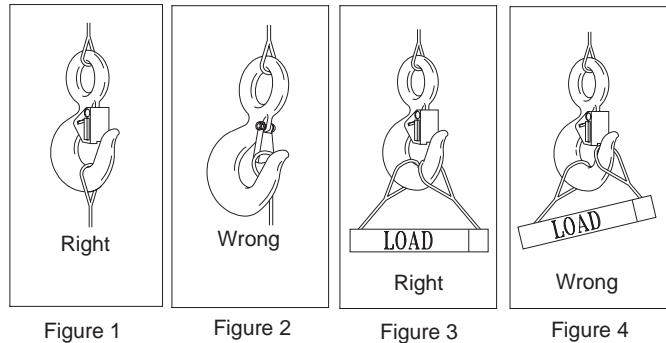


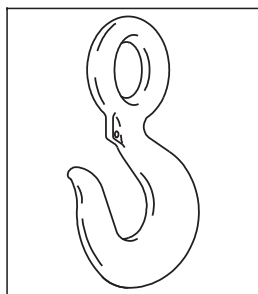
Figure 1

Figure 2

Figure 3

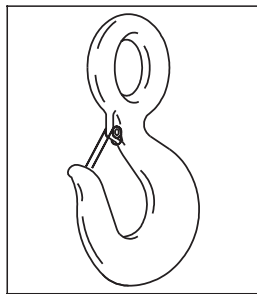
Figure 4

## IMPORTANT - Instructions for Assembling Model PL Latch on Crosby or McKissick Hooks



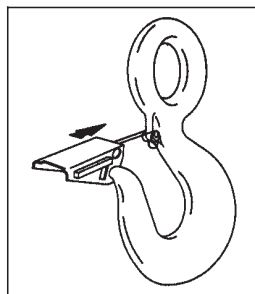
### Step 1

Place hook at approximately a 45 degree angle with the cam up.



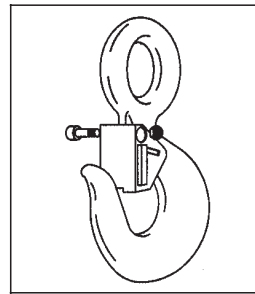
### Step 2

Position coils of spring over cam with legs of spring pointing toward point of hook and loop of spring positioned down and lying against the hook.



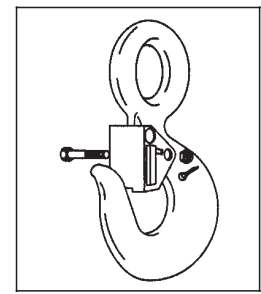
### Step 3

Position latch to side of hook points. Slide latch onto spring legs between lockplate and latch body until latch is partially over hook cam. Then depress latch and spring until latch clears point of hook.



### Steps 4, 5, & 6

4. Line up holes in latch with hook cam.
5. Insert bolt through latch, spring, and cam.
6. Tighten self-locking nut on one end of bolt.



### Step 7 — For Personnel Lifting

With latch in closed position and rigging resting in bowl of hook, insert bolt through latch and secure with nut and cotter pin. When bolt, nut and cotter pin are not being used, store them in a designated place upon the personnel platform.

\*The Model PL Latch Replaces Model G-5066

# CROSBY MODEL PL-N/O HOOK LATCH KIT

## WARNINGS AND APPLICATION INSTRUCTIONS



Model PL-N/O  
(Pat. U.S.A. & Canada)

### Important Safety Information - Read & Follow

- Always inspect hook and latch before using.
- Never use a latch that is distorted or bent.
- Always make sure spring will force the latch against the tip of the hook.
- Always make sure hook supports the load. The latch must never support the load. (See Figure 1 & 2.)
- When placing two (2) sling legs in hook, make sure the angle between the legs is less than 90° and if the hook or load is tilted, nothing bears against the bottom of this latch. (See Figure 3 & 4.)
- Latches are intended to retain loose sling or devices under slack conditions.
- Latches are not intended to be an anti-fouling device.

WARNING

- Loads may disengage from hook if proper procedures are not followed.
- A falling load may cause serious injury or death.
- See OSHA Rule 1926.550 (g) for Personnel Hoisting by Crane or Derricks. A Crosby or McKissick Hook with a Positive Locked PL-N/O or S-4320 Latch may be used to Lift Personnel.
- Hook must always support the load. The load must never be supported by the latch.
- Read and understand these instructions before using hook and latch.

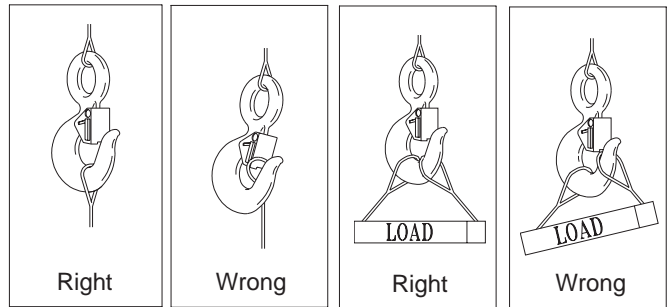
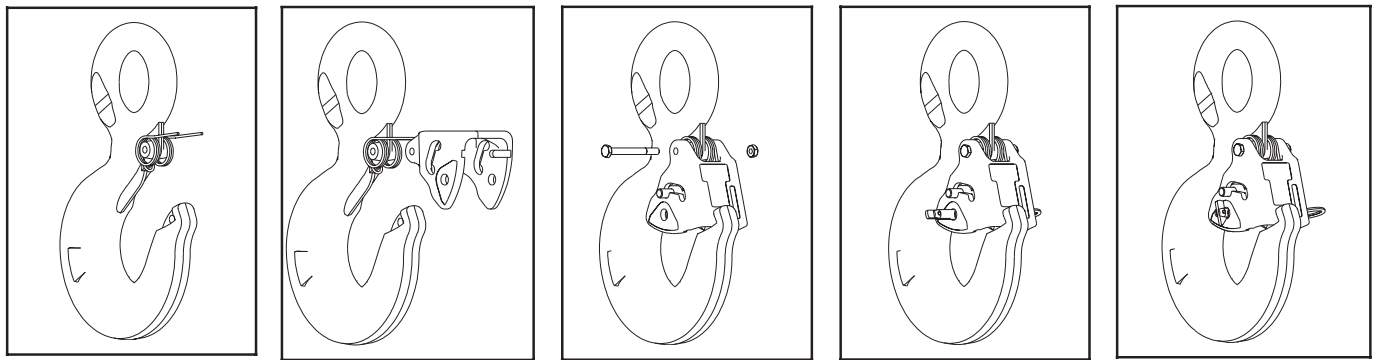


Figure 1      Figure 2      Figure 3      Figure 4

### IMPORTANT - Instructions for Assembling Model PL-N/O Latch on Crosby or McKissick Hooks



Step 1

Step 2

Step 3, 4, 5 & 6

Step 7,8 - For  
Personnel Lifting

Step 9 - For  
Personnel Lifting

1. Place hook in upright position. Position coils of spring over cam with legs of spring pointing toward tip of hook, and loop of spring positioned down and lying against the hook.
2. Slip the latch over the spring until the two spring legs are positioned into the grooves located on the inside of the latch housing (legs of spring should fit between the gate and the housing).
3. Slide latch housing up the spring legs until latch clears hook tip.
4. Resting latch on interlocking hook tip, line up holes in latch with hook cam.
5. Insert bolt through latch spring & cam.
6. Tighten self-locking nut on one end of bolt.
7. Rigging should be resting in bowl of hook, with latch in closed position and gate locked.
8. Insert toggle lock pin through hole and depress spring until toggle clears hole on other side of latch.
9. Rotate toggle 90 degrees to secure pin (ensure toggle is in closed position as shown).

# CROSBY® WELD-ON HOOKS WARNING AND APPLICATION INSTRUCTIONS



BH-313

## Important Safety Information - Read and Follow

- Weld-On hooks are to only be welded to a structure, equipment or machinery in an area (load point) approved by the original equipment manufacturer. (Some manufacturers may not approve the modification of their product).
  - For hydraulic excavator lift capacity rating, refer to SAE standard J1097.
  - A visual periodic inspection for cracks, nicks, wear, gouges and deformation as part of a comprehensive documented inspection program, should be conducted by trained personnel.
  - A visual periodic inspection of the weld should be performed. Check the weld visually, or use a suitable NDE method if required.
  - As excavator buckets are not specifically designed for constant use with excavator hooks, we recommend regular and very thorough inspection of the excavator bucket welding area to insure no distortion has been made to the work area.
  - Never use a hook whose throat opening has been increased, or whose tip has been bent more than 10 degrees out of plane from the hook body, or is in any other way distorted or bent.
- Note: A latch will not work properly on a hook with a bent or worn tip.**
- Never use a hook that is worn beyond the limits shown in Figure 1.
  - Remove from service any hook with a crack, nick, or gouge. Hooks with a crack, nick, or gouge shall be repaired by grinding lengthwise, following the contour of the hook, provided that the reduced dimension is within the limits shown in Figure 1.
  - Never repair, alter, rework, or reshape a hook by welding, heating, burning, or bending.
  - Always make sure the hook supports the load. The load is to be applied within the range shown in Figure 2. The latch must never support the load (See Figure 3).
  - Never side load (See Figure 4), or tip load (See Figure 5) a hook.
  - The use of a latch may be mandatory by regulations or safety codes; e.g., OSHA, MSHA, ANSI/ASME B30, Insurance, etc. (Note: When using latches, see instructions in "Understanding: The Crosby Group Warnings" for further information.)
  - Ensure latch functions properly. Use only genuine Crosby replacement parts.
  - Never attach more than one sling directly in hook. For collecting two or more slings to the hook, use proper hardware.
  - See ANSI/ASME B30.10 "Hooks" for additional information.

**WARNING**

- Loads may disengage from hook if proper procedures are not followed.
- A falling load may cause serious injury or death.
- Hook must always support the load. The load must never be supported by the latch.
- Never apply more force than the hook's assigned Working Load Limit (WLL) rating.
- Do not use Crosby weld on hook for personnel hoisting. See OSHA Rule 19216.550(g).
- Read and understand these instructions before welding on, or using hook.

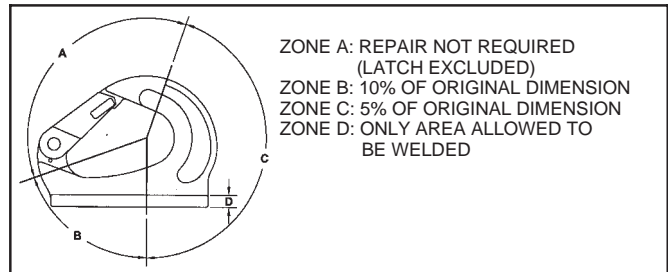


Figure 1

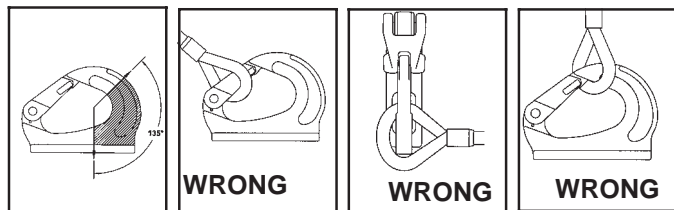


Figure 2

Figure 3

Figure 4

Figure 5

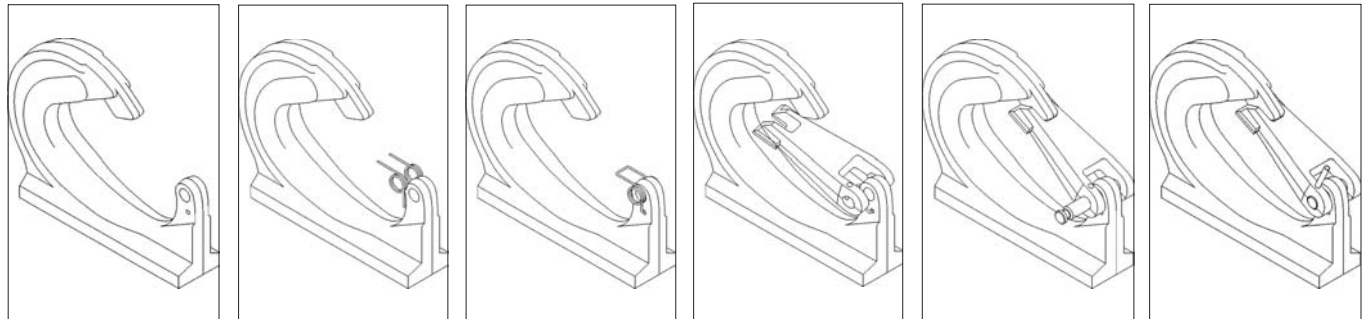
- The strength of the weld-on hook depends upon the method of attachment. Extreme care must be used in choice of support as well as during the attachment process.
- The support structure that the hook is attached to must be of suitable size, composition and quality to support the anticipated loads of all operating positions. The required support structure material thickness for a given application is dependent on variables such as unsupported length and material strength, and should be determined by a qualified individual. Minimum plate thickness required to support the welds are shown in Table 1.

Table 1

Working Load Limit (t)	Minimum Plate Thickness (in.)	Minimum Fillet Size All Around (in.)
1	5	5
2	6	6
3	8	8
4	8	8
5	10	10
8	13	13
10	13	13

- Position the hook to insure that the load is applied in the plane of the hook, and the load is supported by the hook in all operating positions. Insure that the hook does not interfere with the operation of other mechanisms or cause pinch points.
- Insure that the maximum gap between hook base and support does not exceed 1/8". Modify the support structure if required to reduce gap.
- When welding hook to carbon or low alloy steels (less than .40% carbon), the following welding recommendations are to be followed. For welding hook to other grades of steel, a qualified weld procedure must be developed. Crosby hook material is AISI 8622 modified.
- Welding is to be performed by a qualified welder using qualified procedure in accordance with American Welding Society (AWS), and/or American Society of Mechanical Engineers (ASME) requirements.
- Welding electrode to be in accordance with AWS A5.4 E-312-16. Observe the electrode manufacturers recommendations.
- Welding preheat range outlined below.
  - Minimum preheat temperature: 212F (100C)
  - Maximum temperature: 716F (380C)
- Before welding, the surface to be welded on, including the hook and support structure, must be clean and free from rust, grease and paint.
- Fillet weld leg size should be of minimum shown in Table 1. Weld profiles to be in accordance with AWS. Weld size is measured by length of leg.
- Welding should be carried out completely around base in a minimum of two passes to insure adequate root penetration at the base of the hook.
- Do not rapidly cool the weld.
- After welding, a visual inspection of the weld should be performed prior to painting.
- No Cracks, pitting, inclusions, notches or undercuts are allowed. If doubt exists, use a suitable NDE method, such as Magnetic particle or Liquid Penetrate to verify.
- If repair is required on weld, grind out defect and re-weld using original qualified procedure.
- After welding, the assembly should be proof tested before putting into service.

### Important - Instructions for Assembling S-4313 Latch on BH-313 Weld-On Hook



**Step 1**

Place hook flat on work surface as shown.

**Step 2**

**Hook sizes 1 to 3 tons**  
Position coils of spring over hook cam, with legs of spring pointing towards hook tip and coil of spring positioned down as shown.

**Step 2 A**

**Hook sizes 4 to 10 tons.**  
Spread legs of spring and place into drilled hole. Position coils of spring over hook cam, with end of spring pointing toward hook tip as shown.

**Step 3**

Position latch over spring, aligning latch ears and spring coil. On pin hole side of latch, insert non grooved end of latch pin through hole in latch and through spring until contact is made with hook body (a small punch may be required for proper alignment).

**Step 4**

Align holes in latch with holes in cam of hook. Continue pushing the pin through hook, spring and latch.

**Step 5**

Insert roll-pin into latch, driving it in with a hammer, while ensuring that latch pin groove is in alignment.