Office 403.229.0720 Toll Free 1.888.929.0720 Fax 1.866.858.6421

1914 – 5A St SW Calgary, Alberta, Canada T2S 2G1



Shackle Plates

There are five uniquely different designs in the Shackle Plates[™] Dynasty. Each one allows you the freedom of choice as you design the rigging requirements of your scenery, as well as meeting the changing needs of every production.

Quick and easy to use. Choose the best suited Shackle PlateTM for your project and simply attach it by bolting to the lowest point of the scenery directly in line with the Keeper PlateTM that you have bolted to the top of the scenery. The cable line used to suspend the scenery is attached to the Shackle PlateTM and then run though the Keeper Plate'sTM eye opening and finally onto the suspending point. Now you're ready to go.

Shackle PlateTM 1/2" Hole Part # 201

Made from heavy-gauge steel and pre-drilled for assembly with two 1/4" bolts and two #8 or #10 fl at head screws.

Will accept shackles or jaw type turnbuckles with a 1/2" through-bolt and mounts easily to the bottom-rail of any flat or for use as a floor or ceiling plate.





90° Shackle PlateTM Part # 202



Made from heavy-gauge steel and pre-drilled for assembly with two 1/4" bolts. Mounts easily to the side-stiles of any wood or metal flat.



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90° Shackle PlateTM Stubby Part # 203



Made from heavy-gauge steel and pre-drilled for assembly with two 1/4" bolts. This smaller version of the 90-degree Shackle PlateTM will mount easily and more discreetly into the side-stiles of any wood or metal flat.



1/2" Hole Shackle PlateTM Stubby Part # 206



Made from heavy-gauge steel and pre-drilled for assembly with two 1/4" bolts. Smaller version of the 1/2" Shackle PlateTM that will mount easily and more discreetly into the bottom-rail of any wood or metal fl at, and can also be used as a fl oor or ceiling plate.



Keeper PlateTM **Stubby Part** # 205



Last Updated: May 2012

Made from heavy-gauge steel and pre-drilled for assembly with two 1/4" bolts.

Attach the Keeper PlateTM Stubby at the top of the scenery directly in line with the Shackle PlateTM that you have bolted to the lowest point of the piece. The cable line used to suspend the scenery is attached to the Shackle PlateTM and then run though the Keeper Plate'sTM eye opening and finally onto the suspending point

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Keeper PlateTM Part # 2040



suspending point.

Made from heavy-gauge steel and pre-drilled for assembly with two 1/4" bolts and two #8 or #10 fl at head screws.

Attach the Keeper PlateTM at the top of the scenery directly in line with the Shackle PlateTM that you have bolted to the lowest point of the piece. The cable line used to suspend the scenery is attached to the Shackle PlateTM and then run though the Keeper Plate'sTM eye opening and finally onto the

Photo Examples of Shackle Plates in use! (Click Here)

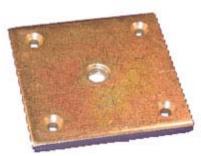
Welding Bolt PlateTM Part # 3050



Made from 1/8" heavy-gauge steel.

Use this trouble-free plate to attach one piece of scenery to another. Weld the square end onto your steel scenery making sure that the rounded end with the hole is exposed. Now your other scenery can be bolted directly to the plate.

Threaded Square PlateTM Part # 30100



Last Updated: May 2012

Made from 1/4" heavy-gauge steel. Pre-drilled and tapped for a 3/8-16 bolt with four counter-sunk holes for #8 or #10 fl at head screws

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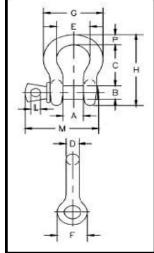
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Shackles

We offer drop forged, quenched and tempered screw pin anchor shackles as our standard but we will provide safety as well as other types of shackles on request. Working load limits are stamped into each shackle. We recommend the use of shackles in overhead lifting because they are rated for this with a built in 5:1 safety factor. We ordinarily sell Crosby shackles.





Nominal Size (in.)	Working Load	Stock No.	Stock No. Weigh Each													Tolerance +/	
	Limit (t)*	G-209	S-209	(lbs.)	A	В	С	D	E	F	G	Н	L	M	P	С	A
3/16	1/3	1018357	_	.06	.38	.25	.88	.19	.60	.56	.98	1.47	.16	1.12	.19	.06	.06
1/4	1/2	1018375	1018384	.10	.47	.31	1.13	.25	.78	.61	1.28	1.84	.19	1.38	.25	.06	.06
5/16	3/4	1018393	1018400	.19	.53	.38	1.22	.31	.84	.75	1.47	2.09	.22	1.66	.31	.06	.06
3/8	1	1018419	1018428	.31	.66	.44	1.44	.38	1.03	.91	1.78	2.49	.25	2.03	.38	.13	.06
7/16	1-1/2	1018437	1018446	.38	.75	.50	1.69	.44	1.16	1.06	2.03	2.91	.31	2.38	.44	.13	.06
1/2	2	1018455	1018464	.72	.81	.63	1.88	.50	1.31	1.19	2.31	3.28	.38	2.69	.50	.13	.06
5/8	3-1/4	1018473	1018482	1.37	1.06	.75	2.38	.63	1.69	1.50	2.94	4.19	.44	3.34	.69	.13	.06
3/4	4-3/4	1018491	1018507	2.35	1.25	.88	2.81	.75	2.00	1.81	3.50	4.97	.50	3.97	.81	.25	.06

Quicklinks

Quick links are not recommended for overhead lifting by the manufacturer, but are often used



because of their convenience. Please keep in mind the working load limits when using quick links. If in doubt, use a shackle. We can supply batch tested as well as the Original Malion Rapide individually tested quick links. Mallion Rapide quick links are manufactured by <u>Péguet and Cie</u> which was founded in 1941 as a family-owned company and now has a

presence in more than 50 countries world-wide. The big strength of the Maillon Rapide (Quick Link) lies in its effectiveness. Despite their small size, they have a matchless strength, further checked by

traction tests during the whole manufacturing process. Safety margin is 5 times the guaranteed working load limit (WLL).

	Size	Working I	Load Limit
metric	imperial	lbs	Kg
4mm	1/8"	220	100
5mm	3/16"	660	300
6mm	1/4"	880	400

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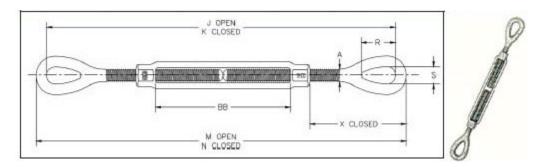


8mm	5/16"	1760	800
9mm	3/8"	2200	1000
10mm	7/16"	2600	1200
12mm	1/2"	3300	1500

Turnbuckles

Turnbuckles are available in a wide variety of sizes and styles. The most commonly used in the theatre are shown below, but we do carry larger sizes and other styles. Available in eye to eye, jaw to jaw, or hook to hook. These are all drop forged galvanized items. Both Crosby and offshore products are available.

Eye & Eye



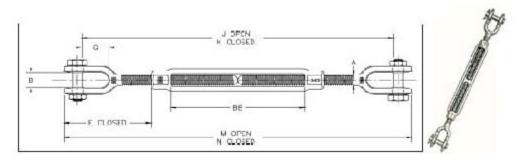
	Stock	Working	Weight		Dimensions (in.)										
Thread Diameter x Take up (in.)	No. Galv.	Load Limit (lbs.)	Each (lbs.)	٨	J Open	K Closed	M Open	N Closed	R	S	X Closed	ВВ			
1/4 x 4	1031252	500	.26	.25	11.80	7.80	12.25	8.25	.78	.34	1.75	4.00			
5/16 x 4 1/2	1031270	800	.45	.31	13.56	9.06	14.12	9.62	.94	.44	2.09	4.50			
3/8 x 6	1031298	1200	.76	.38	17.47	11.47	18.16	12.16	1.12	.53	2.52	6.00			
1/2 x 6	1031314	2200	1.54	.50	20.08	13.08	20.96	13.96	1.44	.72	3.23	6.00			
1/2 x 12	1031350	2200	2.14	.50	32.08	19.08	32.96	19.96	1.44	.72	3.23	12.00			

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Jaw & Jaw



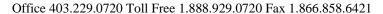
Thread Dia.	HC-227	Working Load	Woight						Di	Dimensions (in.)						
x Take up (in.)	Stock No.	Load Limit (lbs.)	Each (lbs.)		В	E Closed	G	J Open	K Closed	M Open	N Closed	R	S	X Closed	ВВ	
1/4 x 4	1031877	500	.30	.25	.45	1.58	.62	11.35	7.35	12.07	8.07	.78	.34	1.75	4.00	
5/16 x 4 1/2	1031895	800	.50	.31	.50	1.98	.87	13.71	8.71	14.01	9.51	.94	.44	2.09	4.50	
3/8 x 6	1031911	1200	.80	.38	.54	2.12	.87	16.81	10.81	17.77	11.77	1.12	.53	2.52	6.00	
1/2 x 6	1031939	2200	1.51	.50	.65	2.75	1.06	19.29	12.29	20.48	13.48	1.44	.72	3.23	6.00	
1/2 x 9	1031957	2200	1.71	.50	.65	2.75	1.06	25.29	15.29	26.48	16.48	1.44	.72	3.23	9.00	
1/2 x 12	1031957	2200	2.08	.50	.65	2.75	1.06	31.29	31.29	32.48	19.48	1.44	.72	3.23	12.0	

Stage Hardware

D Rings & Hanging Irons

These items are manufactured as a tie off or attachment point for rigging hardware. Shown below are D Ring (most economical), top hanger, bottom hanger and ceiling plate.





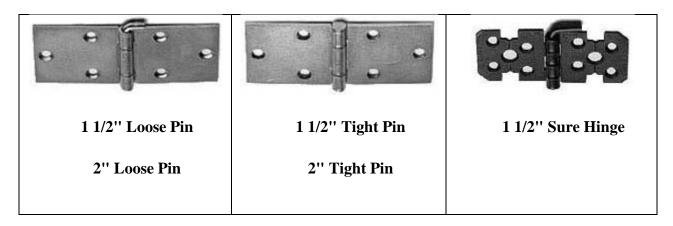
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Hinges

We offer loose pin, tight pin and sure hinges for your scenic and or construction projects

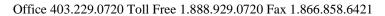


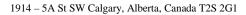
Eye Bolts

G-277 Shoulder Nut Eye Bolts



Shoulder Eye bolts should be utilized whenever there are angular lifts involved





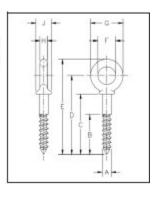


Shank	G-277	Working	Weight	Dimensions (in.)									
Diameter	Stock	Load	Per	A	В	C	D	E	F	G	H	J	
& Length	No.	Limit	100										
(in.)	Galv.	(lbs.)	(lbs.)										
1/4 x 2	1045014	650	6.60	.25	.50	.88	.19	1.50	2.00	2.94	.50	.47	
1/4 x 4	1045032	650	9.10	.25	.50	.88	.19	2.50	4.00	4.94	.50	.47	
5/16 x 2-1/4	1045050	1200	12.50	.31	.62	1.12	.25	1.50	2.25	3.50	.69	.56	
5/16 x 4-1/4	1045078	1200	18.80	.31	.62	1.12	.25	2.50	4.25	5.50	.69	.56	
3/8 x 2-1/2	1045096	1550	21.40	.38	.75	1.38	.31	1.50	2.50	3.97	.78	.66	
3/8 x 4-1/2	1045112	1550	25.30	.38	.75	1.38	.31	2.50	4.50	5.97	.78	.66	
1/2 x 3-1/4	1045130	2600	42.60	.50	1.00	1.75	.38	1.50	3.25	5.12	1.00	.91	
1/2 x 6	1045158	2600	56.80	.50	1.00	1.75	.38	3.00	6.00	7.88	1.00	.91	

G-275 Screw Eye Bolts



Last Updated: May 2012



Lag Eyes for a secure mounting into substantial wood framing are a great tool for the rigging kit.

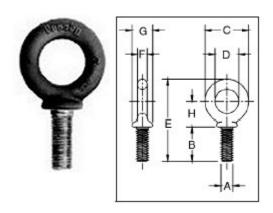
Shank	G-275	Weight	Dimensions (in.)									
Diameter &	Stock No.	Per 100	A	В	C	D	E	F	G	H	J	
Length (in.)	Galv.	(lbs.)										
1/4 x 2	1046111	4.30	.25	1.50	2.00	2.50	2.94	.50	.88	.19	.47	
5/16 x 2-1/4	1046139	9.90	.31	1.69	2.25	2.94	3.50	.63	1.13	.25	.56	
3/8 x 2-1/2	1046157	18.88	.38	1.88	2.50	3.28	3.97	.75	1.38	.31	.66	
1/2 x 3-1/4	1046175	37.50	.50	2.44	3.25	4.25	5.12	1.00	1.75	.38	.91	
5/8 x 4	1046193	85.50	.63	3.00	4.00	5.31	6.44	1.25	2.25	.50	1.12	

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Shoulder Type Machinery Eye Bolts



S-279 UNC

Size	S-279	Working	Weight	Dimensions (in.)									
	Stock	Load	per	A**	В	C	D	E	F	G	H		
	No.	Limit (lbs.)	100 (lbs.)	Thread									
1/4 x 1	9900182	650	5.00	1/4 - 20	1.02	1.13	.75	2.29	.19	.53	.70		
5/16 x 1-1/8	9900191	1200	9.00	5/16 - 18	1.15	1.38	.88	2.74	.25	.59	.90		
3/8 x 1-1/4	9900208	1550	15.00	3/8 - 16	1.27	1.62	1.00	3.07	.31	.69	1.00		
1/2 x 1-1/2	9900217	2600	28.00	1/2 - 13	1.53	1.95	1.19	3.70	.38	.91	1.20		

M-279 Metric

Size	M-279	Working	Weight	Dimensions (mm)								
	Stock	Load Limit	Each	A**	В	C	D	E	F	G	H	
	No.	(kg)	(kg)	Thread								
M6 x 1.0	1045753	200	.03	M6 x 1.0	13.0	28.7	19.1	49	4.9	13.5	21.7	
M8 x 1.0	1045789	400	.05	M8 x 1.25	13.0	35.1	22.4	56	6.4	15.0	25.5	
M10 x 1.5	1045833	640	.07	M10 x 1.5	17.0	41.1	25.4	64	7.9	17.5	26.5	
M12 x 1.75	1045869	1000	.11	M12 x 1.75	20.5	49.5	30.2	78	9.7	23.1	32.8	

Chain

Last Updated: May 2012

There is a wide variety of sizes and styles of chain on the market. Great care should go into the selection of the appropriate chain for your application. We stock the most useful types for the entertainment industry.

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Jack Chain

Is a twisted non-welded loop style of chain useful for very light duty suspension not requiring high strength. Often used in the support of curtain track or drapes from carriers.



Size	Max Dia	Inside length	WLL (lbs)
#8	.16	1.09	60
#10	.14	.93	43
#12	.11	.75	29
#14	.08	.63	16
#16	.06	.5	10

Double Loop

Is a weldless knotted style of low carbon steel chain. While it has higher working load limits, its uses are again for very light duty suspension



Size	Dia	Inside Length	WLL (lbs)
5	.06	.92	55
4	.07	1	70
3	.08	1.1	90
2	.09	1.33	115
1	.11	1.54	155
2/0	.14	2.17	255
3/0	.15	2.17	305
4/0	.16	2.19	365
8/0	.23	2.9	705

Grade 30

Is a good general purpose chain. It is proof tested to twice its working load limit with a



minimum ultimate load of 4 times its working load limit. While not recommended for overhead lifting by the various manufactures it is commonly used in the theatre for the suspension of scenery and pipes due to the ease of attachment of fittings. JR Clancy has come out with the following recommendation from their Chain supplier. "When used within the appropriate work load limits proof coil chain may be used in hanging towing and pulling applications

www.downstageright.com

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Grade 80

This is the only grade of chain recommended by the manufactures for overhead lifting. Unfortunately it is very expensive and the attachment of fittings is very particular.

Recommended for overhead lifting applications.

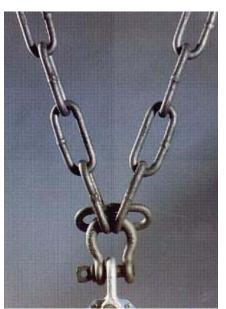
Chain Size	Spec. 8	Feet	Material	Working	Maximum	Minimum	Maximum	Weight
(in.)	Drum	Per	Size	Load	Inside	Inside	Length	Per 100
	Stock	Drum	(in.)	Limit	Length	Width	100 Links	Ft.(lbs.)
	No.			(lbs.)*	(in.)	(in.)	(in.)	
9/32 (1/4)	273527	500	.276	3500	.90	.34	90	72
5/16	273536	500	.343	4500	1.00	.48	100	114
3/8	273545	500	.394	7100	1.25	.49	125	148

CM Special Theatrical Alloy Chain (STAC)

- Special theatrical alloy chain for rigging applications where bridle adjustability is required
- Adjustable to approximate 4" (100mm), will accept up to a 3/4 inch shackle.
- For adjustment in bridles, also useful for hanging safety steels.
- High strength chain with a working load limit of 12,000lbs, 5900 Kg.
- Made from heat treated alloy steel fire proof and abrasion resistant.
- Tested and certified, complete with chain tag.
- 4:1 design factor meets N.A.C.M./GR80 standards for strength
- Each link proof tested to assure weld and material integrity
- Chain embossed with STAC and CM for easy identification as CM alloy
- .5750 lbs. per link
- 1.84 lbs. per foot

Last Updated: May 2012

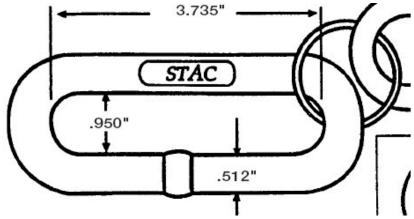
• Tagged with size, grade, reach and working load limit for positive easy identification



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SECOA Theatrical Chain (STCTM)

SECOA Theatrical Chain (STCTM) is an economical chain designed for overhead lifting applications for the theatrical market.

FEATURES:

- Rugged, versatile, high strength with low weight.
- The ultimate tensile strength is two and a half times the strength of a standard 1/4" proof coil chain.
- Same link size as standard 1/4" grade 30 Proof Coil Chain.
- Easily works with existing 1/4" chain hardware.
- SECOA Theatrical Chain (STCTM) is made from alloy steel for superior performance and strength.
- Working load limit of 3,250 pounds.
- Complies with OSHA 1910.184(e)(5) Sling use.
- Lot traceable. Every tenth link has a coded date stamp for quality assurance.
- Proof Tested. Every link is proof tested to twice the working load limit.
- Each link is embossed with "STC" for identification.
- Yellow iridescent chromate finish for easy

identification. BENEFITS:

- Safe, reliable and economical.
- High working load limit for safety.
- Easily identifiable in the field.
- Lot traceable.
- Proof Tested.
- Retrofits easily into existing systems for added safety

