

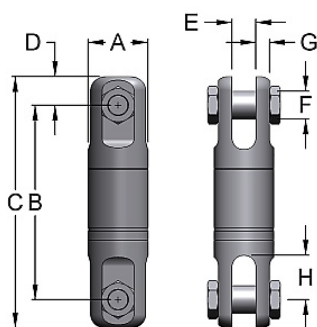
# SWIVELS- Y-LINK/HP, HIGH PRESSURE



**Miller Y-Link alloy steel swivels are available in a high pressure version in six popular configurations**, suitable for use in submerged environments where corrosion exposure from long term unattended deployments are not a major concern. These swivels are based on our Y-Link models and contain special pressure compensating seals for reliable operation to ocean depths of 10,000 feet. Y-Link/HP models are slightly longer than standard Y-Link models due to the addition of special high pressure seals.

- **Y-Link/HP** high pressure swivels contain special pressure compensating seals and oil-filled cavities for reliable operation to depths of 10,000 feet
- Working Load Limits from 0.75 to 600 tons
- Angular contact bearing design extends the life of the wire rope, and maximizes efficiency, reliability and service life
- Alloy steel structural components are zinc plated inside and out for corrosion protection
- Design Factor of 5 to 1 minimum for swivels 35 ton and below
- Design Factor of 4 to 1 minimum for swivels 45 tons and above
- Proof Load is 2 x WLL
- Models 8.5 tons and up include lubrication fitting
- Special designs are available

## CLEVIS TO CLEVIS - TYPE 111HP

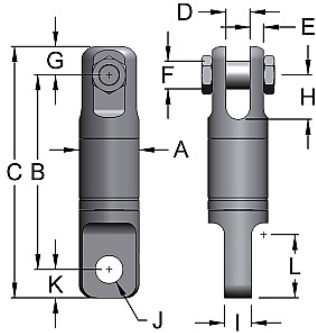


WLL* Tons	Model Number	Rope Size	A	B	C	D	E	F	G	H	Weight Lbs.
0.75	BB-111HP	.25	1.31	3.69	5.56	.44	0.31	.38	0.22	0.56	1
1.5	B-111HP	.375	1.63	5	6.38	.69	0.5	.5	0.31	0.78	2
3	C-111HP	.5	2	5.44	9.31	.94	0.75	.75	0.38	1.19	5
5	D-111HP	.625	2.5	9.19	11.44	1.13	1	.88	0.56	1.56	10
8.5	EE-111HP	.75	3	10.38	13.06	1.34	1.56	1.19	0.53	2.03	15
15	GG-111HP	1	4	15.5	19	1.75	1.75	1.5	0.81	3.5	43
35	HH-111HP	1.5	5	18.19	22.94	2.38	2	2	1.13	3.69	85
45	I-111HP		6	22.56	28.56	3	2.5	2.25	1.25	4	156
60	JJ-111HP		7	24	31	3.5	3	2.5	1.5	4.5	229
75	K-111HP		8	27	35	4	3.5	3	1.75	5	328
100	KK-111HP		10	36.5	47.5	5.5	4.06	4	2	6.75	747
200	L-111HP		11.25	36.31	48.31	6	5.06	4.5	3.09	8.25	885
300	M-111HP		14	44.2	59.2	7.5	6.13	4.75	3.94	9.5	1680

\* Design factors for WLL=35T and below are 5:1; for 45T and above 4:1

## SWIVELS- Y-LINK/HP, HIGH PRESSURE

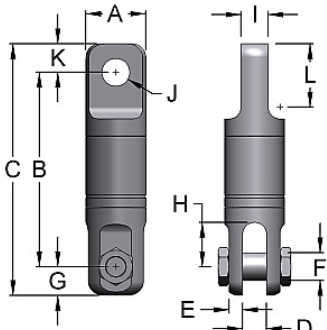
### CLEVIS TO EYE - TYPE 112HP



WLL* Tons	Model Number	Rope Size	A	B	C	D	E	F	G	H	I	J	K	L	Weight Lbs.
0.75	BB-112HP	.25	1.31	4.75	5.56	.31	0.22	.38	0.44	0.56	.31	.38	.44	0.94	1
1.5	B-112HP	.375	1.63	5	6.31	0.5	0.31	.5	0.68	0.78	0.5	.66	.63	1.34	2
3	C-112HP	.5	2	7.31	9.31	0.75	0.38	.75	0.94	1.19	0.75	.91	1	1.94	5
5	D-112HP	.625	2.5	9.13	11.44	1	0.56	.88	1.13	1.56	1	1.28	1.19	2.5	11
8.5	EE-112HP	.75	3	10.25	13.09	1.56	0.53	1.19	1.34	2.09	1.25	1.41	1.5	3.13	16
15	GG-112HP	1	4	15.25	19.13	1.75	0.81	1.5	1.75	3.5	2	2.03	2.13	4.91	43
35	HH-112HP	1.5	5	18.19	22.94	2	1.13	2	2.38	3.69	2.25	2.31	2.38	5.25	82
45	I-112HP		6	22.56	28.56	2.5	1.25	2.25	3	4	2.5	2.53	3	7	149
60	JJ-112HP		7	24	31	3	1.5	2.5	3.5	4.5	3.5	2.88	3.5	7	226
75	K-112HP		8	27	35	3.5	1.75	3	4	5	3.5	3.38	4	8.13	333
100	KK-112HP		10	36.5	47.5	4.06	2	4	5.5	6.75	4.5	4.03	5.5	11.38	698
200	L-112HP		11.25	35.92	48.29	5.06	3.09	4.5	6	8.25	5	4.81	6.38	13.5	885
300	M-112HP		14	44.2	59.2	6.13	3.94	4.75	7.5	9.5	6	6.06	8	17	1645

\* Design factors for WLL=35T and below are 5:1; for 45T and above 4:1

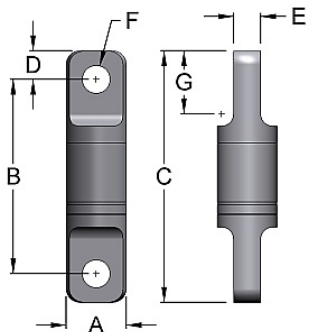
### EYE TO CLEVIS - TYPE 211HP



WLL* Tons	Model Number	Rope Size	A	B	C	D	E	F	G	H	I	J	K	L	Weight Lbs.
0.75	BB-211HP	1/4	1.31	4.69	5.56	.31	0.22	.38	0.44	0.56	.31	.38	.44	0.94	1
1.5	B-211HP	3/8	1.63	5	6.31	0.5	0.31	.5	0.68	0.78	0.5	.66	.63	1.34	2
3	C-211HP	1/2	2	7.31	9.31	0.75	0.38	.75	0.94	1.19	0.75	.91	1	1.94	5
5	D-211HP	5/8	2.5	9.13	11.44	1	0.56	.88	1.13	1.56	1	1.28	1.19	2.5	10
8.5	EE-211HP	3/4	3	10.25	13.09	1.56	0.53	1.19	1.34	2.09	1.25	1.41	1.5	3.13	16
15	GG-211HP	1	4	15.25	19.13	1.75	0.81	1.5	1.75	3.5	2	2.03	2.13	4.91	43
35	HH-211HP	1 1/2	5	18.19	22.94	2	1.13	2	2.38	3.69	2.25	2.31	2.38	5.25	80
45	I-211HP		6	22.56	28.56	2.5	1.25	2.25	3	4	2.5	2.53	3	7	149
60	JJ-211HP		7	24	31	3	1.5	2.5	3.5	4.5	3.5	2.88	3.5	7	233
75	K-211HP		8	27	35	3.5	1.75	3	4	5	3.5	3.38	4	8.25	333
100	KK-211HP		10	36.5	47.5	4.06	2	4	5.5	6.75	4.5	4.03	5.5	11.38	731
200	L-211HP		11.25	35.93	48.31	5.06	3.09	4.5	6	8.25	5	4.81	6.38	13.5	885
300	M-211HP		14	44.2	59.2	6.13	3.94	4.75	7.5	9.5	6	6.06	8	17	1645

\* Design factors for WLL=35T and below are 5:1; for 45T and above 4:1

### EYE TO EYE - TYPE 212HP

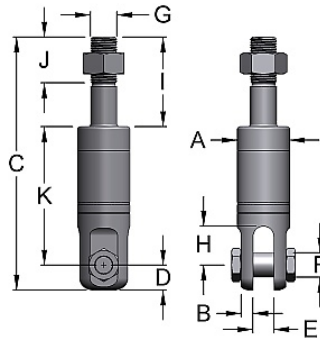


WLL* Tons	Model Number	Rope Size	A	B	C	D	E	F	G	Weight Lbs.
0.75	BB-212HP	1/4	1.31	4.94	5.88	.44	0.31	.39	0.94	1
1.5	B-212HP	3/8	1.63	5	6.25	.69	0.5	.66	1.34	2
3	C-212HP	1/2	2	7.31	9.31	1	0.75	.91	1.94	5
5	D-212HP	5/8	2.5	9.06	11.44	1.19	1	1.28	2.5	10
8.5	EE-212HP	3/4	3	10.13	13.06	1.5	1.25	1.41	3.13	16
15	GG-212HP	1	4	15.13	19.38	2.13	2	2.03	4.91	43
35	HH-212HP	1 1/2	5	18.19	22.94	2.38	2.25	2.31	5.25	79
45	I-212HP		6	22.56	28.56	3	2.5	2.53	7	142
60	JJ-212HP		7	24	31	3.5	3.5	2.88	7	231
75	K-212HP		8	27	35	4	3.5	3.38	8.25	340
100	KK-212HP		10	36.5	47.5	5.5	4.5	4.03	11.38	704
200	L-212HP		11.25	35.56	48.31	6.38	5	4.81	13.5	875
300	M-212HP		14	43.2	59.2	8	6	6.06	17	1600

\* Design factors for WLL=35T and below are 5:1; for 45T and above 4:1

# SWIVELS- Y-LINK/HP, HIGH PRESSURE

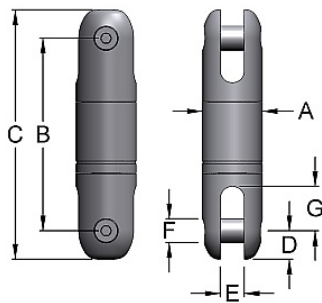
## STUD TO CLEVIS - TYPE 311HP



WLL* Tons	Model Number	Rope Size	A	B	C	D	E	F	G	H	I	J	K	Weight Lbs.
0.75	BB-311HP	1/4	1.31	0.22	5.81	.44	0.31	.38	0.63	0.56	2	1.5	4.38	1
1.5	B-311HP	3/8	1.63	0.31	7	.69	0.5	.5	0.75	0.78	2	1.5	4.31	2
3	C-311HP	1/2	2	0.38	10.44	.88	0.75	.75	0.88	1.19	3	2.63	5.25	5
5	D-311HP	5/8	2.5	0.56	11.19	1.13	1	.88	1.25	1.56	3.5	3.13	6.56	11
8.5	EE-311HP	3/4	3	0.53	13.78	1.34	1.56	1.19	1.5	2.09	4	3	8.44	15
15	GG-311HP	1	4	0.81	18.69	1.75	1.75	1.5	2	3.5	5.5	3	11.44	40
35	HH-311HP	1 1/2	5	1.13	25.56	2.38	2	2	2.5	3.69	8.5	4.25	14.69	84
45	I-311HP		6	1.25	28	3	2.5	2.25	3	4	8	4	17	141
60	JJ-311HP		7	1.5	31.5	3.5	3	2.5	3.25	4.5	8	4	20	219
75	K-311HP		8	1.75	36.5	4	3.5	3	3.75	5	10	5	22.5	295
100	KK-311HP		10	2	54.75	5.5	4.06	4	6.25	6.75	20.5	7.25	28.75	699

\* Design factors for WLL=35T and below are 5:1; for 45T and above 4:1

## BULLET NOSE TO BULLET NOSE - TYPE 414HP



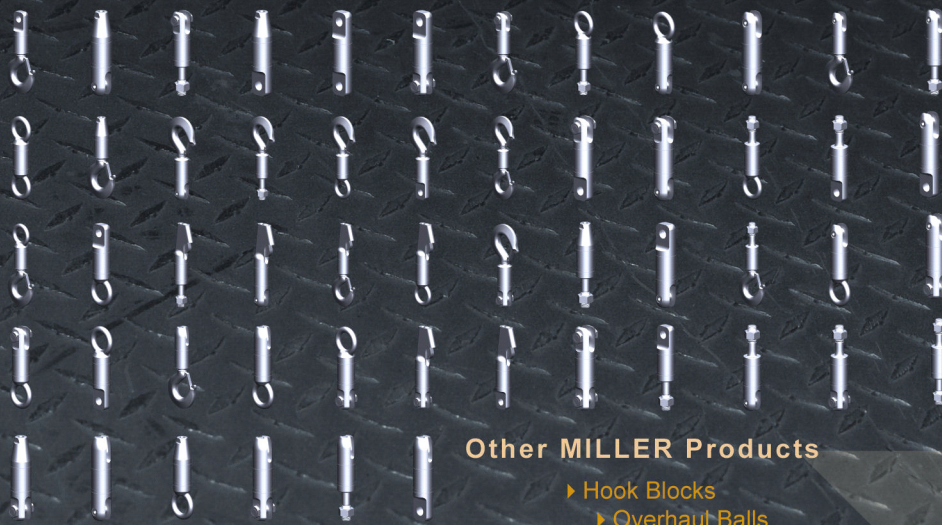
WLL* Tons	Model Number	Rope Size	A	B	C	D	E	F	G	Weight Lbs.
0.75	BB-414HP	.25	1.31	4.88	5.63	.44	0.31	.38	0.56	1
1.5	B-414HP	3/8	1.63	5	6.25	.56	0.5	.44	0.81	2
3	C-414HP	3/8	2	6.5	8.13	.81	0.75	.63	0.94	4
5	D-414HP	5/8	2.5	9.25	11.38	1.13	1	.88	1.56	9
8.5	EE-414HP	3/4	3	10.56	13.13	1.25	1.28	1	2.13	16
15	GG-414HP	1	4	15	18.5	1.75	1.75	1.5	3.25	42
35	HH-414HP	1 1/2	5	18.16	22.91	2.38	2	2	3.69	87

\* Design factors for WLL=35T and below are 5:1; for 45T and above 4:1



54 termination combinations to suit your requirements so far. Don't see the one you need? No problem. Miller has the largest range of swivels worldwide and customization is our specialty. We've been at it since 1935 and have more than a few ideas.

## 54 Varieties... & COUNTING



- ▶ Angular Contact Y-Link
- ▶ Thrust Bearing Econo-Link
- ▶ Stainless
- ▶ Undersea Hydro-Link/Chain
- ▶ Line Pulling
- ▶ Foundation Drilling
- ▶ Insulated
- ▶ Custom Designs
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## SWIVELS- HYDRO-LINK & HYDRO-LINK/HP

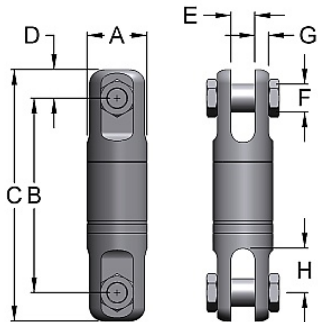
- Miller Hydro-Link swivels are machined from a special non-magnetic, austenitic stainless steel alloy of exceptionally high strength and corrosion resistance which maintains good mechanical properties at elevated and sub-zero temperatures.
- **Available in two configurations, standard Hydro-Link and high pressure Hydro-Link/HP**



- **Hydro-Link** swivels are intended for use with cable and chain in non-submerged corrosive environments such as sea air or harsh industrial environments
- **Hydro-Link/HP** high pressure swivels contain special pressure compensating seals and oil-filled cavities for reliable operation to depths of 10,000 feet
- Working Load Limits from 0.75 to 600 tons
- Angular contact bearing design extends the life of the wire rope, and maximizes efficiency, reliability and service life
- Stainless steel parts are passivated for added corrosion resistance
- Design Factor of 5 to 1 minimum for swivels 35 tons and below
- Design Factor of 4 to 1 minimum for swivels 45 tons and above
- Proof Load is 2 x WLL
- Models 8.5 tons and up include lubrication fitting
- Special designs available

## SWIVELS- HYDRO LINK, STAINLESS STEEL

### CLEVIS TO CLEVIS - TYPE 151, STAINLESS STEEL

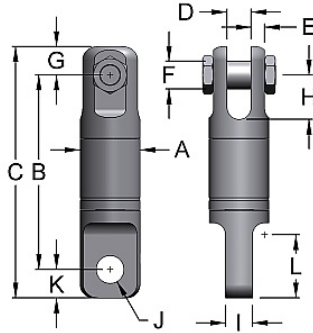


WLL* Tons	Model Number	Rope Size	A	B	C	D	E	F	H	G	Weight Lbs.
0.75	BB-151	1/4	1.31	3.5	4.38	0.44	0.31	.38	0.22	0.56	0.93
1.5	B-151	3/8	1.63	4.06	5.44	0.69	0.5	.5	0.31	0.78	2
3	C-151	1/2	2.00	6.25	8.09	0.94	0.75	.75	0.38	1.19	4.5
5	D-151	5/8	2.5	7.94	10.09	1.13	1	.88	0.56	1.56	9.5
8.5	EE-151	3/4	2.88	9.63	12.31	1.34	1.56	1.19	0.53	2.09	15.25
10	G-151	7/8	4.00	14	17.5	1.75	1.75	1.5	0.81	3.5	40
15	GG-151	1	4.00	14	17.5	1.75	1.75	1.5	0.81	3.5	40
25	H-151	1 1/4	5.00	15.94	20.69	2.38	2	2	1.13	3.69	78
35	HH-151	1 1/2	5.00	15.94	20.69	2.38	2	2	1.13	3.69	78
45	I-151		6.00	20.06	26.06	3	2.5	2.25	1.25	4	146
50	J-151		7.00	20.94	27.94	3.5	3	2.5	1.5	4.5	207
60	JJ-151		7.00	20.94	27.94	3.5	3	2.5	1.5	4.5	207
75	K-151		8.00	24	32	4	3.5	3	1.75	5	300
100	KK-151		10.00	32.38	43.38	5.5	4.06	4	2	6.75	692
150	KKK-151		10	32.88	43.88	5.5	4.06	4	2	6.75	692
200	L-151		11.25	36.31	48.31	6	5.06	4.5	3.09	8.25	885
300	M-151		14	43.95	58.95	7.5	6.13	4.75	3.94	9.5	1680

\* Design factors for WLL=35T and below are 5:1; for 45T and above 4:1

# SWIVELS- HYDRO LINK, STAINLESS STEEL

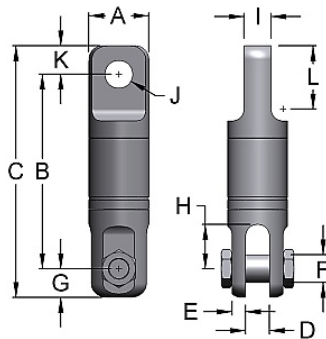
## CLEVIS TO EYE - TYPE 152, STAINLESS STEEL



WLL* Tons	Model Number	Rope Size	A	B	C	D	E	F	G	H	I	J	K	L	Weight Lbs.
0.75	BB-152	1/4	1.31	3.56	4.44	0.31	0.22	.38	0.44	0.56	0.31	.38	.44	0.94	0.94
1.5	B-152	3/8	1.63	4.13	5.38	0.5	0.31	.5	0.69	0.78	0.5	.66	.63	1.34	1.94
3	C-152	1/2	2.0	6.19	8.13	0.75	0.38	.75	0.94	1.19	0.75	.91	1	1.94	4.25
5	D-152	5/8	2.5	7.88	10.19	1	0.56	.88	1.13	1.56	1	1.28	1.19	2.5	8.94
8.5	EE-152	3/4	2.88	9.5	12.34	1.56	0.53	1.19	1.34	2.19	1.25	1.41	1.5	3.13	15.25
10	G-152	7/8	4.0	13.94	17.5	1.75	0.81	1.5	1.75	3.5	1.72	1.66	1.81	4.66	39
15	GG-152	1	4.0	13.63	17.5	1.75	0.81	1.5	1.75	3.5	1.94	2.03	2.13	4.91	40
25	H-152	1 1/4	5.0	15.94	20.69	2	1.13	2.03	2.38	3.69	2.25	2.31	2.38	5.25	75
35	HH-152	1 1/2	5.0	15.94	20.69	2	1.13	2.03	2.38	3.69	2.25	2.31	2.38	5.25	75
45	I-152		6.0	20.06	26.06	2.5	1.25	2.25	3	4	2.5	2.53	3	7	139
50	J-152		7.0	20.94	27.94	3	1.5	2.5	3.5	4.5	2.94	2.88	3.5	7	205
60	JJ-152		7.0	20.94	27.94	3	1.5	2.5	3.5	4.5	2.94	2.88	3.5	7	205
75	K-152		8.0	24	32	3.5	1.75	3	4	5	3.5	3.38	4	8.13	305
100	KK-152		10.0	32.88	43.88	4.06	2	4	5.5	6.75	4.5	4.03	5.5	11.38	647
150	KKK-152		10	32.88	43.88	4.06	2	4	5.5	6.75	4.5	4.28	5.5	11.38	647
200	L-152		11.25	35.92	48.29	5.06	3.09	4.5	6	8.25	5	4.81	6.38	13.5	885
300	M-152		14	43.45	58.95	6.13	3.94	4.75	7.5	9.5	6	6.06	8	17	1645

\* Design factors for WLL=35T and below are 5:1; for 45T and above 4:1

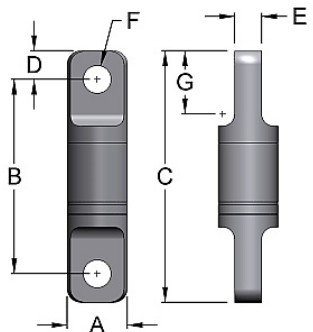
## EYE TO CLEVIS - TYPE 251, STAINLESS STEEL



WLL* Tons	Model Number	Rope Size	A	B	C	D	E	F	G	H	I	J	K	L	Weight Lbs.
0.75	BB-251	1/4	1.31	3.63	4.5	0.31	0.22	.38	0.44	0.44	0.31	.39	.44	0.94	0.94
1.5	B-251	3/8	1.63	4.13	5.44	0.5	0.31	.5	0.69	0.78	0.5	.66	.63	1.34	1.88
3	C-251	1/2	2.0	6.19	8.13	0.75	0.38	.75	0.94	1.19	0.75	.91	1	1.94	4.31
5	D-251	5/8	2.5	7.88	10.19	1	0.56	.88	1.13	1.56	1	1.28	1.19	2.5	9.06
8.5	EE-251	3/4	2.88	9.5	12.34	1.56	0.53	1.19	1.34	2.19	1.25	1.41	1.5	3.13	14.75
10	G-251	7/8	4.0	13.94	17.5	1.75	0.81	1.5	1.75	3.5	1.72	1.66	1.81	4.66	39
15	GG-251	1	4.0	13.63	17.5	1.75	0.81	1.5	1.75	3.5	1.94	2.03	2.13	4.91	40
25	H-251	1 1/4	5.0	15.94	20.69	2	1.13	2	2.38	3.69	2.25	2.31	2.38	5.25	75
35	HH-251	1 1/2	5.0	15.94	20.69	2	1.13	2	2.38	3.69	2.25	2.31	2.38	5.25	75
45	I-251		6.0	20.06	26.06	2.5	1.25	2.25	3	4	2.5	2.53	3	7	139
60	JJ-251		7.0	20.94	27.94	3	1.5	2.5	3.5	4.5	2.94	2.88	3.5	7	211
50	J-251		7.0	20.94	27.94	3	1.5	2.5	3.5	4.5	2.94	2.88	3.5	7	211
75	K-251		8.0	24	32	3.5	1.75	3	4	5	3.5	3.38	4	8.13	305
100	KK-251		10.0	32.88	43.88	4.06	2	4	5.5	6.75	4.5	4.03	5.5	11.38	678
150	KKK-251		10	32.88	43.88	4.06	2	4	5.5	6.75	4.5	4.28	5.5	11.38	678
200	L-251		11.25	35.93	48.31	5.06	3.09	4.5	6	8.25	5	4.81	6.38	13.5	885
300	M-251		14	43.45	58.95	6.13	3.94	4.75	7.5	9.5	6	6.06	8	17	1645

\* Design factors for WLL=35T and below are 5:1; for 45T and above 4:1

## EYE TO EYE - TYPE 252, STAINLESS STEEL

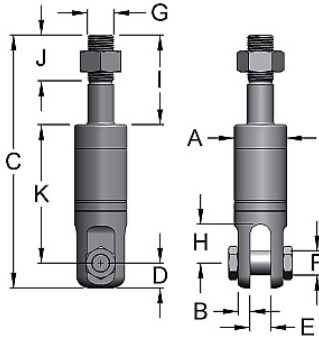


WLL* Tons	Model Number	Rope Size	A	B	C	D	E	F	G	Weight Lbs.
0.75	BB-252	1/4	1.31	3.81	4.69	0.44	0.31	.39	0.94	0.93
1.5	B-252	3/8	1.63	4.13	5.38	0.63	0.5	.66	1.34	1.87
3	C-252	1/2	2	6.13	8.13	1	0.75	.91	1.94	4.06
5	D-252	5/8	2.5	7.81	10.19	1.19	1	1.28	2.5	8.5
8.5	EE-252	3/4	2.88	9.31	12.31	1.5	1.25	1.41	3.13	14.75
10	G-252	7/8	4	13.88	17.5	1.81	1.72	1.63	4.66	37
15	GG-252	1	4	13.25	17.5	2.13	1.94	2.03	4.91	39
25	H-252	1 1/4	5	15.94	20.69	2.38	2.25	2.31	5.25	72
35	HH-252	1 1/2	5	15.94	20.69	2.38	2.25	2.31	5.25	72
45	I-252		6	20.06	26.06	3	2.5	2.53	7	132
50	J-252		7	20.94	27.94	3.5	2.94	2.88	7	209
60	JJ-252		7	20.94	27.94	3.5	2.94	2.88	7	209
75	K-252		8	24	32	4	3.5	3.38	8.13	311
100	KK-252		10	32.88	43.41	5.5	4.5	4.03	11.38	653
150	KKK-252		10	32.88	43.88	5.5	4.5	4.28	11.38	657
200	L-252		11.25	35.56	48.31	6.38	5	4.81	13.5	880
300	M-252		14	42.95	58.95	8	6	6.06	17	1610

\* Design factors for WLL=35T and below are 5:1; for 45T and above 4:1

## SWIVELS- HYDRO LINK, STAINLESS STEEL

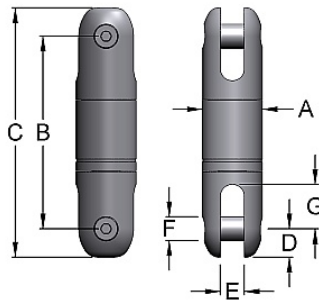
### STUD TO CLEVIS - TYPE 351, STAINLESS STEEL



WLL* Tons	Model Number	Rope Size	A	B	C	D	E	F	G	H	I	J	K	Weight Lbs.
0.75	BB-351	1/4	1.31	0.22	5.63	0.44	0.31	.38	0.63	0.56	2	1.5	3.19	1.06
1.5	B-351	3/8	1.63	0.31	6.06	0.69	0.5	.5	0.75	0.78	2	1.5	3.75	1.87
3	C-351	1/2	2	0.38	9.19	0.94	0.75	.75	0.88	1.19	3	2.63	5.25	4.5
5	D-351	5/8	2.5	0.56	11.19	1.13	1	.88	1.25	1.56	3.5	3.13	6.56	9.75
8.5	EE-351	3/4	2.88	0.53	13.03	1.56	1.56	1.19	1.5	2.19	4	3	7.69	14.5
10	G-351	7/8	4	0.81	17.44	1.75	1.75	1.5	2	3.5	5.5	3	10.19	37
15	GG-351	1	4	0.81	17.44	1.75	1.75	1.5	2	3.5	5.5	3	10.19	37
25	H-351	1 1/4	5	1.13	23.31	2.38	2	2	2.5	3.69	8.5	4.25	12.44	78
35	HH-351	1 1/2	5	1.13	23.31	2.38	2	2	2.5	3.69	8.5	4.25	10.44	78
45	I-351		6	1.25	25.56	3	2.5	2.25	3	4	8	4	14.56	131
50	J-351		7	1.5	28.44	3.5	3	2.5	3.25	4.5	8	4	16.94	198
60	JJ-351		7	1.5	28.44	3.5	3	2.5	3.25	4.5	8	4	16.94	198
75	K-351		8	1.75	33.5	4	3.5	3	3.75	5	10	5	19.5	271
100	KK-351		10	2	51.13	5.5	4.06	4	6.25	6.75	20.5	7.25	25.13	648

\* Design factors for WLL=35T and below are 5:1; for 45T and above 4:1

### BULLET NOSE TO BULLET NOSE - TYPE 454, STAINLESS STEEL

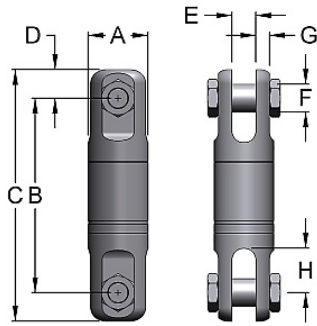


WLL* Tons	Model Number	Rope Size	A	B	C	D	E	F	G	Weight Lbs.
0.75	BB-454	1/4	1.31	3.56	4.44	0.44	0.31	.38	0.56	1.12
1.5	B-454	3/8	1.63	4.06	5.19	0.56	0.5	.44	0.81	1.81
3	C-454	1/2	2	5.44	7.06	0.81	0.75	.63	0.94	3.87
5	D-454	5/8	2.5	7.88	10.19	1.13	1	.88	1.56	8.06
8.5	EE-454	3/4	2.88	9.81	12.31	1.25	1.28	1	2.13	14.5
10	G-454	7/8	4	13.25	16.75	1.75	1.75	1.5	3.25	40
15	GG-454	1	4	13.25	16.75	1.75	1.75	1.5	3.25	40
25	H-454	1 1/4	5	15.91	20.66	2.38	2	2	3.69	84
35	HH-454	1 1/2	5	15.91	20.66	2.38	2	2	3.69	84

\* Design factors for WLL=35T and below are 5:1; for 45T and above 4:1

# SWIVELS- HYDRO LINK\HP, HIGH PRESSURE, STAINLESS STEEL

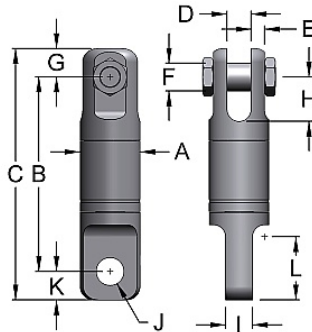
## CLEVIS TO CLEVIS - TYPE 151HP, STAINLESS STEEL



WLL* Tons	Model Number	Rope Size	A	B	C	D	E	F	G	H	Weight Lbs.
0.75	BB-151HP	1/4	1.31	3.69	5.56	.44	0.31	.38	0.22	0.56	1
1.5	B-151HP	3/8	1.63	5	6.38	.69	0.5	.5	0.31	0.78	2
3	C-151HP	1/2	2	5.44	9.31	.94	0.75	.75	0.38	1.19	5
5	D-151HP	5/8	2.5	9.19	11.44	1.13	1	.88	0.56	1.56	10
8.5	EE-151HP	3/4	3	10.38	13.06	1.34	1.56	1.19	0.53	2.03	15
15	GG-151HP	1	4	15.5	19	1.75	1.75	1.5	0.81	3.5	43
35	HH-151HP	1 1/2	5	18.19	22.94	2.38	2	2	1.13	3.69	85
45	I-151HP		6	22.56	28.56	3	2.5	2.25	1.25	4	156
60	JJ-151HP		7	24	31	3.5	3	2.5	1.5	4.5	229
75	K-151HP		8	27	35	4	3.5	3	1.75	5	328
100	KK-151HP		10	36.5	47.5	5.5	4.06	4	2	6.75	747
200	L-151HP		11.25	36.31	48.31	6	5.06	4.5	3.09	8.25	885
300	M-151HP		14	44.2	59.2	7.5	6.13	4.75	3.94	9.5	1680

\* Design factors for WLL=35T and below are 5:1; for 45T and above 4:1

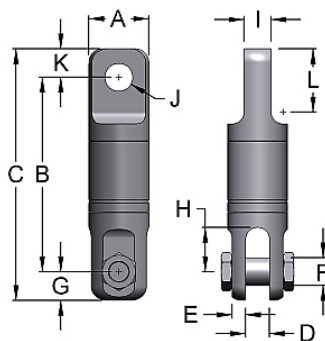
## CLEVIS TO EYE - TYPE 152HP, STAINLESS STEEL



WLL* Tons	Model Number	Rope Size	A	B	C	D	E	F	G	H	I	J	K	L	Weight Lbs.
0.75	BB-152HP	1/4	1.31	4.75	5.56	.31	0.22	.375	0.44	0.56	.31	.38	.44	0.94	1
1.5	B-152HP	3/8	1.63	5	6.31	0.5	0.31	.5	0.68	0.78	0.5	.66	.63	1.34	2
3	C-152HP	1/2	2	7.31	9.31	0.75	0.38	.75	0.94	1.19	0.75	.91	1	1.94	5
5	D-152HP	5/8	2.5	9.13	11.44	1	0.56	.88	1.13	1.56	1	1.28	1.19	2.5	11
8.5	EE-152HP	3/4	3	10.25	13.09	1.56	0.53	1.06	1.34	2.09	1.25	1.41	1.5	3.13	16
15	GG-152HP	1	4	15.25	19.13	1.75	0.81	1.5	1.75	3.5	2	2.03	2.13	4.91	43
35	HH-152HP	1 1/2	5	18.19	22.94	2	1.13	2.03	2.38	3.69	2.25	2.31	2.38	5.25	82
45	I-152HP		6	22.56	28.56	2.5	1.25	2.25	3	4	2.5	2.53	3	7	149
60	JJ-152HP		7	24	31	3	1.5	2.5	3.5	4.5	3.5	2.88	3.5	7	226
75	K-152HP		8	27	35	3.5	1.75	3	4	5	3.5	3.38	4	8.13	333
100	KK-152HP		10	36.5	47.5	4.06	2	4	5.5	6.75	4.5	4.03	5.5	11.38	698
200	L-152HP		11.25	35.92	48.29	5.06	3.09	4.5	6	8.25	5	4.81	6.38	13.5	885
300	M-152HP		14	44.2	59.2	6.13	3.94	4.75	7.5	9.5	6	6.06	8	17	1645

\* Design factors for WLL=35T and below are 5:1; for 45T and above 4:1

## EYE TO CLEVIS - TYPE 251HP, STAINLESS STEEL

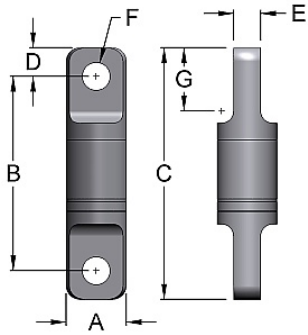


WLL* Tons	Model Number	Rope Size	A	B	C	D	E	F	G	H	I	J	K	L	Weight Lbs.
0.75	BB-251HP	1/4	1.31	4.69	5.56	.31	0.22	.38	0.44	0.56	.31	.39	.44	0.94	1
1.5	B-251HP	3/8	1.63	5	6.31	0.5	0.31	.5	0.68	0.78	0.5	.66	.63	1.34	2
3	C-251HP	1/2	2	7.31	9.31	0.75	0.38	.75	0.94	1.19	0.75	.91	1	1.94	5
5	D-251HP	5/8	2.5	9.13	11.44	1	0.56	.88	1.13	1.56	1	1.28	1.19	2.5	10
8.5	EE-251HP	3/4	3	10.25	13.09	1.56	0.53	1.19	1.34	2.09	1.25	1.41	1.5	3.13	16
15	GG-251HP	1	4	15.25	19.13	1.75	0.81	1.5	1.75	3.5	2	2.03	2.13	4.91	43
35	HH-251HP	1 1/2	5	18.19	22.94	2	1.13	2	2.38	3.69	2.25	2.31	2.38	5.25	80
45	I-251HP		6	22.56	28.56	2.5	1.25	2.25	3	4	2.5	2.53	3	7	149
60	JJ-251HP		7	24	31	3	1.5	2.5	3.5	4.5	3.5	2.88	3.5	7	233
75	K-251HP		8	27	35	3.5	1.75	3	4	5	3.5	3.03	4	8.25	333
100	KK-251HP		10	36.5	47.5	4.06	2	4	5.5	6.75	4.5	4.03	5.5	11.38	731
200	L-251HP		11.25	35.93	48.31	5.06	3.09	4.5	6	8.25	5	4.81	6.38	13.5	885
300	M-251HP		14	44.2	59.2	6.13	3.94	4.75	7.5	9.5	6	6.06	8	17	1645

\* Design factors for WLL=35T and below are 5:1; for 45T and above 4:1

## SWIVELS- HYDRO LINK\HP, HIGH PRESSURE, STAINLESS STEEL

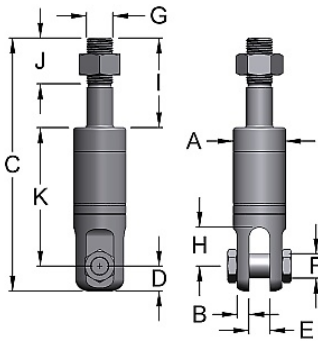
### EYE TO EYE - TYPE 252HP, STAINLESS STEEL



WLL* Tons	Model Number	Rope Size	A	B	C	D	E	F	G	Weight Lbs.
0.75	BB-252HP	1/4	1.31	4.94	5.88	.44	0.31	.39	0.94	1
1.5	B-252HP	3/8	1.63	5	6.25	.69	0.5	.66	1.34	2
3	C-252HP	1/2	2	7.31	9.31	1	0.75	.91	1.94	5
5	D-252HP	5/8	2.5	9.06	11.44	1.19	1	1.28	2.5	10
8.5	EE-252HP	3/4	3	10.13	13.06	1.5	1.25	1.41	3.13	16
15	GG-252HP	1	4	15.13	19.38	2.13	2	2.03	4.91	43
35	HH-252HP	1 1/2	5	18.19	22.94	2.38	2.25	2.31	5.25	79
45	I-252HP		6	22.56	28.56	3	2.5	2.53	7	142
60	JJ-252HP		7	24	31	3.5	3.5	2.88	7	231
75	K-252HP		8	27	35	4	3.5	3.38	8.25	340
100	KK-252HP		10	36.5	47.5	5.5	4.5	4.03	11.38	704
200	L-252HP		11.25	35.56	48.31	6.38	5	4.81	13.5	875
300	M-252HP		14	43.2	59.2	8	6	6.06	17	1600

\* Design factors for WLL=35T and below are 5:1; for 45T and above 4:1

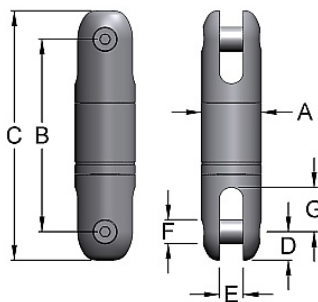
### STUD TO CLEVIS - TYPE 351HP, STAINLESS STEEL



WLL* Tons	Model Number	Rope Size	A	B	C	D	E	F	G	H	I	J	K	Weight Lbs.
0.75	BB-351HP	1/4	1.31	0.22	5.81	.44	0.31	.38	0.63	0.56	2	1.5	4.38	1
1.5	B-351HP	3/8	1.63	0.31	7	.69	0.5	.5	0.75	0.78	2	1.5	4.31	2
3	C-351HP	1/2	2	0.38	10.44	.88	0.75	.75	0.88	1.19	3	2.63	5.25	5
5	D-351HP	5/8	2.5	0.56	11.19	1.13	1	.88	1.25	1.56	3.5	3.13	6.56	11
8.5	EE-351HP	3/4	3	0.53	13.78	1.34	1.56	1.19	1.5	2.09	4	3	8.44	15
15	GG-351HP	1	4	0.81	18.69	1.75	1.75	1.5	2	3.5	5.5	3	11.44	40
35	HH-351HP	1 1/2	5	1.13	25.56	2.38	2	2	2.5	3.69	8.5	4.25	14.69	84
45	I-351HP		6	1.25	28	3	2.5	2.25	3	4	8	4	17	141
60	JJ-351HP		7	1.5	31.5	3.5	3	2.5	3.25	4.5	8	4	20	219
75	K-351HP		8	1.75	36.5	4	3.5	3	3.75	5	10	5	22.5	295
100	KK-351HP		10	2	54.75	5.5	4.06	4	6.25	6.75	20.5	7.25	28.75	699

\* Design factors for WLL=35T and below are 5:1; for 45T and above 4:1

### BULLET NOSE TO BULLET NOSE - TYPE 454HP, STAINLESS STEEL



WLL* Tons	Model Number	Rope Size	A	B	C	D	E	F	G	Weight Lbs.
0.75	BB-454HP	1/4	1.31	4.88	5.63	.44	0.31	.38	0.56	1
1.5	B-454HP	3/8	1.63	5	6.25	.56	0.5	.44	0.81	2
3	C-454HP	1/2	2	6.5	8.13	.81	0.75	.63	0.94	4
5	D-454HP	5/8	2.5	9.25	11.38	1.13	1	.88	1.56	9
8.5	EE-454HP	3/4	3	10.56	13.13	1.25	1.28	1	2.13	16
15	GG-454HP	1	4	15	18.5	1.75	1.75	1.5	3.25	42
35	HH-454HP	1 1/2	5	18.16	22.91	2.38	2	2	3.69	87

\* Design factors for WLL=35T and below are 5:1; for 45T and above 4:1