



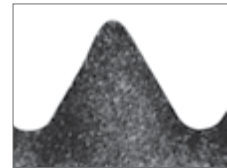
HG-223

HOOK & HOOK
Meets the performance requirements of Federal Specifications FF-T-791b, Type 1, Form 1, Class 5, and ASTM F-1145, except for those provisions required of the contractor.



HG-226


EYE & EYE
Meets the performance requirements of Federal Specifications FF-T-791b, Type 1, Form 1, Class 4, and ASTM F-1145, except for those provisions required of the contractor.

Modified Thread:
Note stress relieving radii in this unretouched photo enlargement of the supabuckle.


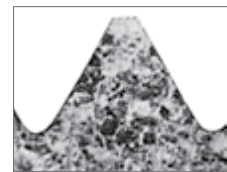
HG-227

JAW & EYE
Meets the performance requirements of Federal Specifications FF-T-791b, Type 1, Form 1, Class 8, and ASTM F-1145, except for those provisions required of the contractor.



HG-228

JAW & JAW
Meets the performance requirements of Federal Specifications FF-T-791b, Type 1, Form 1, Class 7, and ASTM F-1145, except for those provisions required of the contractor.

Standard Thread:
Note stress building sharp "V" in this untouched photo enlargement.

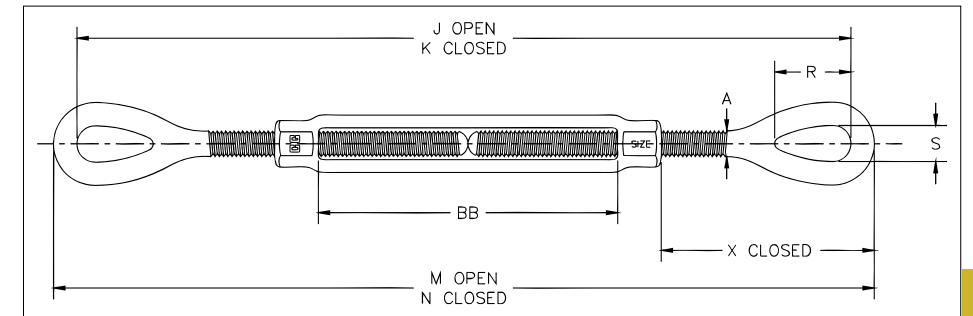


HG-226



APPLICATION AND WARNING INFORMATION SECTION 17

- End fittings are Quenched & Tempered or normalized, bodies heat-treated by normalizing.
- Hot-dip galvanized steel.
- Turnbuckle eyes are forged elongated, by design, to maximize easy attachment in system and minimize stress in the eye. For turnbuckle sizes 1/4" through 2-1/2", a shackle one size smaller can be reeved through eye.
- Modified UNJ thread on end fittings for improved fatigue properties. Body has UNC threads.
- TURNBUCKLES RECOMMENDED FOR STRAIGHT OR IN-LINE PULL ONLY.
- Lock nuts available for all sizes.
- Fatigue rated to 20,000 cycles at 1-1/2 times the Working Load Limit.
- Meets or exceeds all requirements of ASME B30.26 including identification, ductility, design factor, proof load, and temperature requirements. Importantly, these turnbuckles meet other critical performance requirements including fatigue life, impact properties, and material traceability, not addressed by ASME B30.26.
- Meets the performance requirements of Federal Specifications FF-T-791b, Type 1 Form 1 - CLASS 4, and ASTM F-1145, except for those provisions required of the contractor. For additional information, see the warnings and applications section.



Turnbuckle Information

- Turnbuckle assembly combinations include: eye & eye, hook & hook, jaw & jaw, and jaw & eye.
- End fittings are Quenched & Tempered or normalized, bodies heat treated by normalizing.
- Crosby's Quenched & Tempered end fittings and normalized bodies have enhanced impact properties for greater toughness at all temperatures.
- Hot-dip galvanized.
- Hooks are forged with a greater cross sectional area that results in a stronger hook with better fatigue properties.
- Modified UNJ thread on end fittings for improved fatigue properties. Body has UNC threads.
- Turnbuckle eyes are forged elongated, by design, to maximize easy attachment in system and minimize stress in the eye. For turnbuckle sizes 1/4" through 2-1/2", a shackle one size smaller can be reeved through eye.
- Forged jaw ends are fitted with bolts and nuts on size 1/4" - 5/8", and pins and cotter on sizes 3/4" through 2-3/4".
- Can be used in general service conditions down to temperatures of -40° F (-40° C) and up to 400° F (204° C). See page 3 for more details.
- **TURNBUCKLES RECOMMENDED FOR STRAIGHT OR IN-LINE PULL ONLY.**
- Lock nuts available for all sizes.
- Typical hardness levels, tensile strengths and ductility properties are available for all sizes.
- Meets or exceeds all the requirements of ASME B30.26 including identification, ductility, design factor, proof load and temperature requirements. Importantly, these turnbuckles meet other critical performance requirements, including fatigue life, impact properties and material traceability, not addressed by ASME B30.26.

HG-226 Eye & Eye

Thread Dia. & Take Up (in)	Stock No.	Working Load Limit (lb)	Weight Each (lb)	Dimensions (in)									
				A	J Open	K Closed	M Open	N Closed	R	S	X Closed	BB	
* 5/16 x 4-1/2	1031270	800	.48	.31	13.92	9.42	14.48	9.98	.95	.44	2.20	4.58	
* 3/8 x 6	1031298	1200	.75	.38	17.56	11.56	18.24	12.24	1.13	.53	2.48	6.10	
1/2 x 6	1031314	2200	1.72	.50	19.94	13.94	20.82	14.82	1.41	.71	3.56	6.03	
1/2 x 12	1031350	2200	2.63	.50	32.23	20.23	33.11	21.11	1.41	.71	3.54	12.36	
5/8 x 6	1031378	3500	2.75	.63	21.72	15.72	22.72	16.72	1.80	.88	4.35	6.03	
5/8 x 12	1031412	3500	4.12	.63	34.06	22.06	35.06	23.06	1.80	.88	4.34	12.39	
3/4 x 6	1031430	5200	4.22	.75	23.24	17.24	24.50	18.50	2.09	1.00	5.12	6.13	
3/4 x 12	1031476	5200	6.12	.75	35.64	23.64	36.90	24.90	2.09	1.00	5.09	12.59	
3/4 x 18	1031494	5200	7.83	.75	47.64	29.64	48.90	30.90	2.09	1.00	5.12	18.53	
7/8 x 12	1031519	7200	8.83	.88	36.70	24.70	38.20	26.20	2.38	1.25	5.79	12.16	
7/8 x 18	1031537	7200	11.5	.88	49.17	31.17	50.67	32.67	2.38	1.25	5.79	18.63	
1 x 6	1031555	10000	9.62	1.00	26.24	20.24	28.00	22.00	3.00	1.43	6.50	6.18	
1 x 12	1031573	10000	13.0	1.00	38.24	26.24	40.00	28.00	3.00	1.43	6.50	12.18	
1 x 18	1031591	10000	16.3	1.00	50.24	32.24	52.00	34.00	3.00	1.43	6.50	18.18	
1 x 24	1031617	10000	20.2	1.00	62.84	38.84	64.60	40.60	3.00	1.43	6.47	24.84	
1-1/4 x 12	1031635	15200	19.9	1.25	42.14	30.14	44.38	32.38	3.59	1.82	8.49	12.06	
1-1/4 x 18	1031653	15200	23.8	1.25	54.14	36.14	56.38	38.38	3.59	1.82	8.49	18.06	
1-1/4 x 24	1031671	15200	27.8	1.25	66.70	42.70	68.94	44.94	3.59	1.82	8.49	24.62	
1-1/2 x 12	1031699	21400	28.7	1.50	44.24	32.24	46.74	34.74	4.09	2.12	9.46	12.32	
1-1/2 x 18	1031715	21400	34.1	1.50	56.24	38.24	58.74	40.74	4.09	2.12	9.46	18.32	
1-1/2 x 24	1031733	21400	39.6	1.50	68.86	44.86	71.36	47.36	4.09	2.12	9.46	24.94	
1-3/4 x 18	1031779	28000	50.7	1.75	57.38	39.38	60.38	42.38	4.65	2.38	9.97	18.37	
1-3/4 x 24	1031797	28000	58.2	1.75	69.38	45.38	72.38	48.38	4.65	2.38	9.97	24.37	
2 x 24	1031813	37000	83.5	2.00	75.68	51.68	79.18	55.18	5.81	2.69	13.03	24.48	
2-1/2 x 24	1031831	60000	149	2.50	79.18	55.18	83.18	59.18	6.49	3.12	13.76	24.60	
2-3/4 x 24	1031859	75000	174	2.75	81.34	57.34	85.84	61.84	7.00	3.25	15.09	24.65	

5:1 Design Factor. Proof Load is 2.5 times the Working Load Limit. *Mechanical galvanized