AUSTLIFT®
TURNBUCKLES &
RIGGING SCREWS
LIFTING YOUR BUSINESS TO A HIGHER LEVEL
AUSTRALIAN LIFTING CENTRE PTY LTD
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Turnbuckles & Rigging Screws

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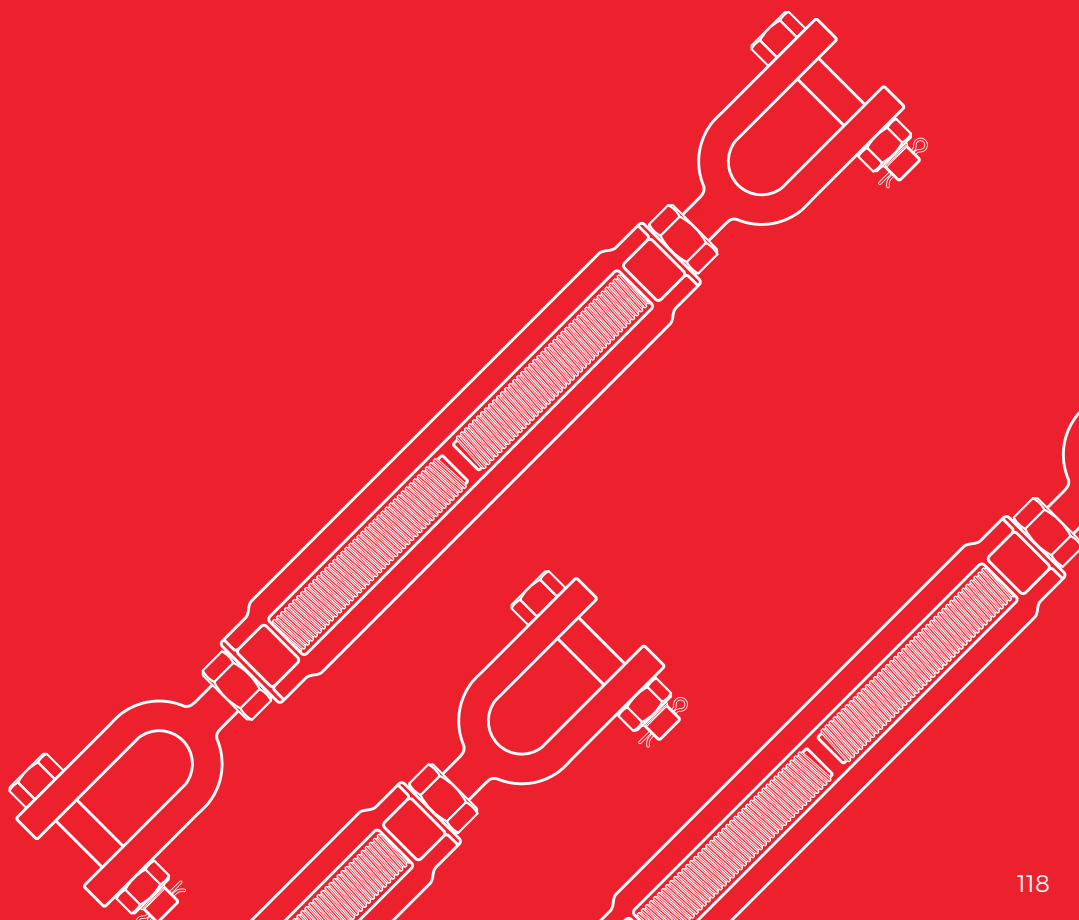


Turnbuckle Inspection Before Use

WARNING
It is recommend that a competent person conduct the above checking of turnbuckles & rigging screws and withdraw from service, if any of the below defects are found and cannot be rectified.

With clevis end fittings ensure that the nut, bolt and split pin are in sound condition and free from any defects.

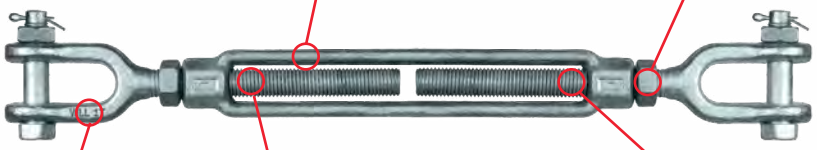
Make sure that threads are visible in the observation holes on both sides.

Ensure that all relevant markings are correctly stamped and legible to read.

Ensure that end fittings are free from distortion, nicks, gouges, cracks, and corrosion.

Ensure that the body is free from distortion, nicks, cracks gouges and corrosion.

Ensure that the threads are free from damage such as nicks, gouges, cracks, and corrosion or too tight to turn.

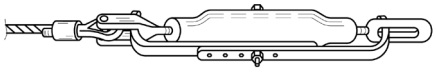


Ensure that all relevant markings are correctly stamped and legible to read.

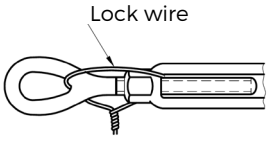
Ensure the threads are lubricated regularly with appropriate lubricant.

When fully extended ensure that the threads protrude no less than the diameter of nominated size.

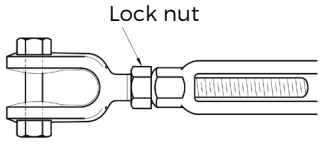
Recommended Turnbuckle locking methods



(a) Pair of plates



(b) Wire



(c) Lock nut

General

Turnbuckles & rigging screws are used in lifting, tensioning and staying systems to make adjustment to the length of the systems.

Type

Non-rated commercial turnbuckles generally have combinations on end fittings such as eye & eye, hook & eye, stub & stub and hook & hook to tension commercial fittings, wire rope assemblies and alike, also available are special purpose buckles for the fencing industries. The most common buckles are made from cast or forged steel in galvanised finish therefore under any circumstance are not to be used for lifting and/or high tension applications.

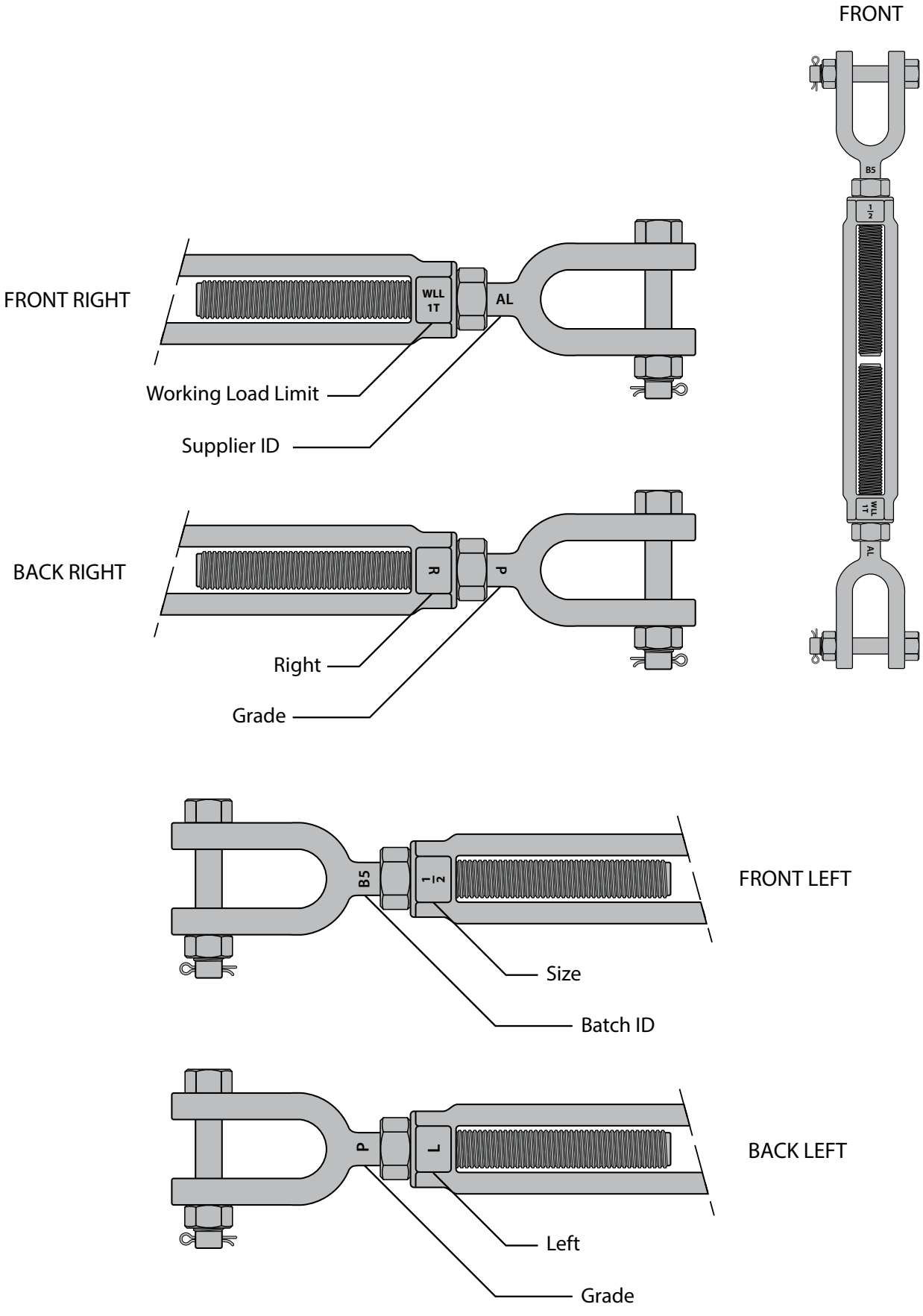
Rated rigging screws generally have elongated eyes or clevis end fittings for connection to shackles, wire rope assembles, anchor points and the like. Rigging screw bodies are formed from tubular sections of steel and can have an almost infinite size range and length adjustment. Size and adjustment of rigging screws is limited by the available end fittings. The tubular body provides a reservoir for lubricates such as grease which gives the screw an advantage in corrosive applications.

Rated turnbuckles have the same applications as rigging screws, but have a generally smaller size range and shorter adjustment. The advantages of a turnbuckle is they have a greater ability to be tightened under load as well as providing means for locking while in service.

Care & Use

1. Make sure that the correct turnbuckle or rigging screw is selected for intended use and application.
2. Where components are connected to turnbuckle or rigging screw ensure they do not bind and freely articulate so that the system can sit in a straight line when tension is applied .
3. When tensioning the body of a turnbuckle or rigging screw ensure that both end terminals and fittings do not rotate.
4. Do not tension turnbuckles or rigging screws beyond the specified rating especially smaller sizes.
5. Turnbuckles and rigging screws are not designed for continuous adjustment under rated load conditions therefore wear on the threads should be considered if used in this way.
6. Locknuts, fitted to the ends of the body, are a method of locking, but may not provide positive or reliable locking under all circumstances therefore should be inspected regularly.
7. High temperatures affect the WLL of the turnbuckle and rigging screw therefore the working load limit should be reduced by 0-200˚C no reduction, 10% for temperatures between 200-300˚C, 25% for temperatures between 300-400˚C, do not use if the temperatures over 400˚C. Extremely low temperature applications may present a high risk of failure while loaded below the WLL.
8. Threads should be protected from corrosion by affective means.
9. Turnbuckles and rigging screws should be inspected periodically by a competent person.

Turnbuckle Identifying Features



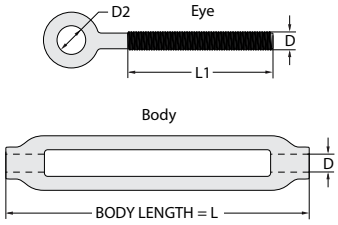
COMMERCIAL GRADE TURNBUCKLE

Commercial Grade Turnbuckle
(Eye & Eye Type, Cast)

- Used in conjunction with wire rope assemblies etc. for light duty tensioning applications.
- Manufactured from malleable cast steel in zinc plated finish.
- Eye and eye end fittings for intended applications.
- Sizes available from 5mm to 24mm.

Malleable Cast Steel | Size available 5-24mm | Light Duty

WARNING NOT FOR LIFTING APPLICATIONS



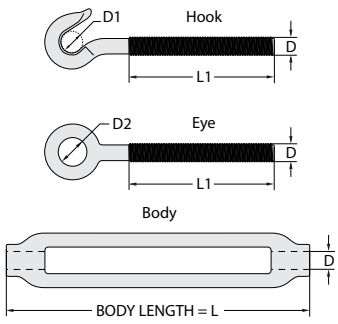
SIZE (mm)	CODE	Wt. (kg)	DIMENSIONS (mm)			
			L	L1	D	D2
5	401005	0.048	70	32	5	8
6	401006	0.067	80	35	6	9
8	401008	0.13	105	50	8	11
10	401010	0.23	130	62	10	16
12	401012	0.35	140	65	12	18
16	401016	0.90	178	88	16	24
20	401020	1.43	215	110	20	28
22	401022	2.10	240	120	22	32
24	401025	2.62	255	135	24	36

Commercial Grade Turnbuckle
(Hook & Eye Type, Cast)

- Used in conjunction with wire rope assemblies etc for light duty tensioning applications.
- Manufactured from malleable cast steel in zinc plated finish.
- Hook and eye end fittings for intended applications.
- Sizes available from 5mm to 24mm.

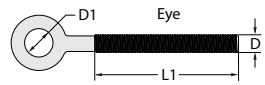
Malleable Cast Steel | Size available 5-24mm | Light Duty

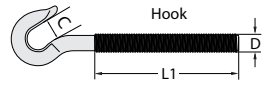
WARNING NOT FOR LIFTING APPLICATIONS

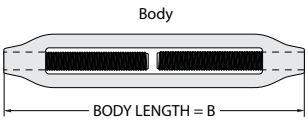


SIZE (mm)	CODE	Wt. (kg)	DIMENSIONS (mm)				
			D	D1	D2	L	L1
5	402005	0.034	5	7	8	70	32
6	402006	0.052	6	8	9	80	35
8	402008	0.098	8	10	11	105	50
10	402010	0.226	10	16	16	130	62
12	402012	0.338	12	18	18	140	65
16	402016	0.898	16	24	24	178	88
20	402020	1.595	20	28	28	215	110
22	402022	2.18	22	32	32	240	120
24	402025	2.8	24	36	36	255	135

FORGED/GALVANISED TURNBUCKLE







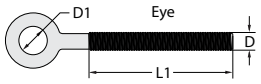
Turnbuckle (Hook & Eye Type, Forged)

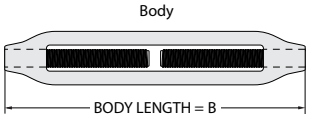
- Suitable for outdoor use in conjunction with wire rope assemblies etc. for heavy duty tensioning applications.
- Manufactured from forged steel in hot dipped galvanised finish.
- Hook and eye end fittings for intended applications.

Forged Steel | Size available 6-32mm | Heavy Duty | JIS Standard

WARNING
NOT FOR LIFTING APPLICATIONS

SIZE (mm)	CODE	WLL (kg)	Wt. (kg)	DIMENSIONS (mm)				
				B	D	D1	C	L1
6	403006	70	0.1	100	6	11	8	48
8	403008	100	0.18	125	8	14	10	58
10	403010	230	0.31	150	10	18	13	70
12	403012	320	0.55	200	12	19	14	95
16	403016	630	1.1	250	16	24	18	105
20	403020	980	1.94	300	20	26.5	22	130
22	403022	1220	2.64	330	22	34	24	165
25	403025	1410	4	350	25	37	26	190
28	403028	1700	6	350	28	38	29	160
32	403032	2100	10	400	32	38	33	200





Turnbuckle (Eye &Eye Type, Forged)

- Suitable for outdoor use in conjunction with wire rope assemblies etc for heavy duty tensioning applications.
- Manufactured from forged steel in hot dipped galvanised finish.
- Eye and eye end fittings for intended applications.

Forged Steel | Size available 6-32mm | Heavy Duty | JIS Standard

WARNING
NOT FOR LIFTING APPLICATIONS

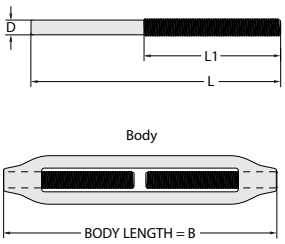
SIZE (mm)	CODE	WLL (kg)	Wt. (kg)	DIMENSIONS (mm)			
				B	D	D1	L1
6	404006	70	0.1	100	6	11	48
8	404008	100	0.18	125	8	14	58
10	404010	230	0.31	150	10	18	70
12	404012	320	0.55	200	12	19	95
16	404016	630	1.1	250	16	24	105
20	404020	980	1.94	300	20	26.5	130
22	404022	1220	2.64	330	22	34	165
25	404025	1410	4	350	24	37	190
28	404028	1700	6	350	27	38	160
32	404032	2100	10	400	32	38	200

Turnbuckle (Stub & Stub Type, Forged)

- Stub ends allow the flexibility to be welded and customise complicated systems.
- Manufactured from heavy duty forged steel body in hot dipped galvanised finish.
- Available in zinc or black finish stub ends.

Forged Steel | Size available 10-32mm | Heavy Duty

WARNING
NOT FOR LIFTING APPLICATIONS



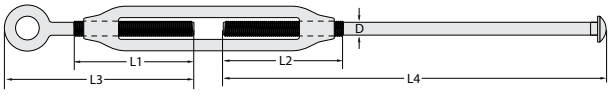
SIZE (mm)	CODE		Wt. (kg)	DIMENSIONS (mm)			
	ZINC	BLACK		B	D	L	L1
10	405010	405010B	0.31	150	8.9	130	75
12	405012	405012B	0.55	200	10.68	150	100
16	405016	405016B	1.1	250	14.5	180	125
20	405020	405020B	1.94	300	18.1	220	150
22	405022	405022B	3	330	20.1	250	165
25	405025	405025B	4	350	21.7	270	175
28	405028	405028B	5.5	350	25.8	290	190
32	405032	405032B	7	400	28.85	300	200

Fencing Turnbuckle (Forged)

- Suitable for outdoor use in conjunction with fence posts etc. for heavy duty tensioning applications.
- Manufactured from forged steel in hot dipped galvanised finish in cup head bolt and eye end fittings for intended applications.

Heavy Duty

WARNING
NOT FOR LIFTING APPLICATIONS



SIZE (mm)	CODE	Wt. (kg)	DIMENSIONS (mm)			
			L1	L2	L3	L4
16	405035	1.3	120	130	190	370

Grade P Rated Turnbuckle (Jaw Jaw/ Clevis/ Superbuckle)

- Generally used for straight or in line tensioning in conjunction with wire rope and or chain assemblies when heavy duty straining and lifting applications are required.
- Manufactured from Grade P high tensile material quenched and tempered hot dipped galvanised finish suitable for outdoor use available in imperial sizing and jaw end fittings with lock nuts.
- Meets the design requirements of ASTM F1145:2017.
- Proof tested to 2 x WLL and minimum break force is 5 x WLL.
- Suitable for industrial lifting purposes.
- The actual sizes of thread are whitworth.

ASTM Standard

Certified

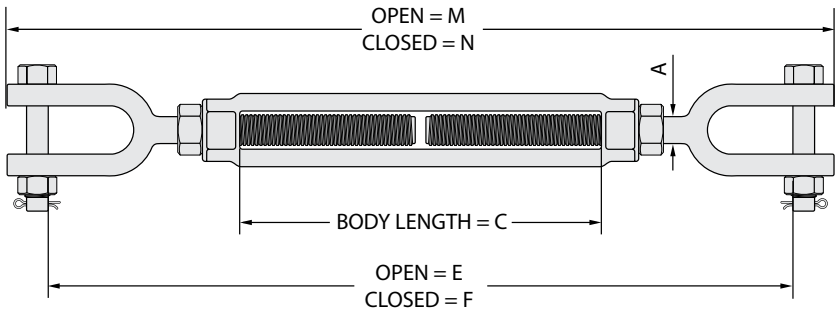
High Tensile Steel

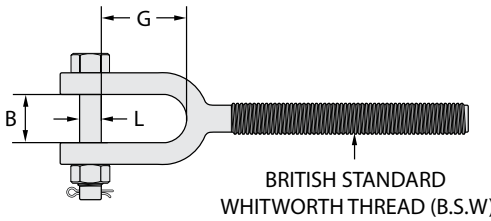
MBF x5 WLL

Proof loaded x2 WLL

Heavy Duty

IMPERIAL THREAD





SIZE		CODE	WLL (T)	Wt. (kg)	DIMENSIONS (mm)								
(m)m	(inch)				A	B	C	E	F	G	M	N	L
10	3/8”	406010	0.54	0.37	9.65	12.7	152	410	258	22.1	441	289	8
12	1/2”	406012	1	0.71	12.7	16	152	470	292	26.9	508	330	10
16	5/8”	406016	1.59	1.56	16	19	229	662	401	33.3	715	454	12.7
16	5/8”	406016C	1.59	1.23	16	19	200	509	340	33.3	562	378	12.7
20	3/4”	406020	2.36	2.98	19.1	23.4	305	851	508	38.1	917	574	16
22	7/8”	406022	3.27	3.71	22.4	28.7	375	892	543	44.5	967	618	19
25	1”	406025	4.54	5.53	25.4	30	305	933	577	52.5	1018	662	22.5
32	1”1/4	406032	6.89	9.36	31.8	44.5	305	1012	644	71.5	1119	750	29
38	1”1/2	406038	9.71	13.9	38.1	52	305	1054	673	71.5	1181	800	35
45	1”3/4	406045	12.7	24.5	44.5	60	457	1356	899	86	1503	1046	41
51	2”	406051	16.8	42.8	51	63.5	610	1766	1157	93.5	1949	1339	50.8
64	2”1/2	406064	27.2	75	63.5	73	610	1854	1244	113	2087	1478	57

Grade P/S Rated Rigging Screw (Jaw Jaw)

- Generally used for straight or in line tensioning in conjunction with wire rope and or chain assemblies when heavy duty straining and lifting applications are required.
- Manufactured from Grade P/S high tensile material quenched and tempered hot dipped galvanised finish, suitable for outdoor use, available in metric sizing and jaw end fittings with lock nuts.
- Meets the design requirements of AS2319 Proof tested to 2 x WLL and minimum break force is 6 x WLL.
- Suitable for industrial lifting purposes.
- Individual proof tested.

AS/NZS 2319

Certified

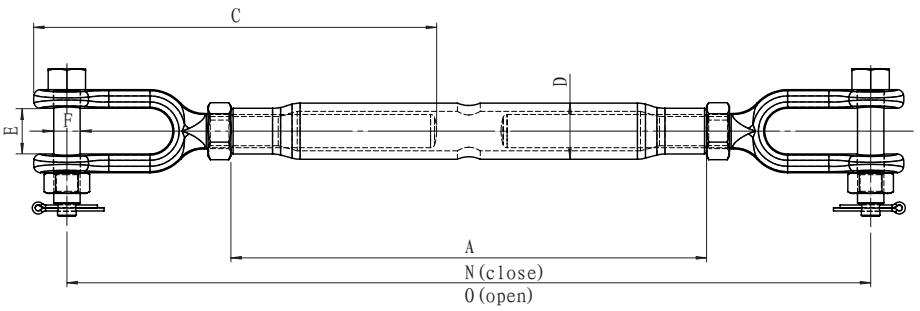
High Tensile Steel

MBF x6 WLL

Proof loaded x2 WLL

Heavy Duty

METRIC THREAD



SIZE (mm)	CODE		WLL (T)	Wt. (kg)	DIMENSIONS (mm)						
					A	C	D	E	F	N	O
10	407010	Grade P	0.6	0.48	152	124	21	11	8	235	345
12	407012	Grade P	1	0.98	229	183	25	19	10	350	525
16	407016	Grade P	1.6	1.4	229	194	27	22	12	390	530
20	407020	Grade P	2.5	2.3	229	204	34	22	16	405	540
24	407024	Grade P	4	4.85	356	292	42	32	22	565	820
27	407027	Grade P	5	5.75	256	294	45	32	22	590	805
33	407033	Grade P	8	8.08	381	320	57	38	24	640	870
39	407039	Grade P	10	13.5	407	356	63.5	47	32	700	960
45	407045	Grade P	12	18.6	407	378	70	51	36	755	975
48	407048	Grade P	16	23	407	404	76	51	42	790	975
SIZE (mm)	CODE		WLL (T)	Wt. (kg)	DIMENSIONS (mm)						
					A	C	D	E	F	N	O
10	407110	Grade S	0.8	0.48	152	124	21	11	8	235	345
12	407112	Grade S	1.2	0.98	229	183	25	19	10	350	525
16	407116	Grade S	2	1.4	229	194	27	22	12	390	530
20	407120	Grade S	3.2	2.3	229	204	34	22	16	405	540
24	407124	Grade S	5	4.85	356	292	42	32	22	565	820
27	407127	Grade S	6.3	5.75	256	294	45	32	22	590	805
33	407133	Grade S	10	8.08	381	320	57	38	24	640	870
39	407139	Grade S	12	13.5	407	356	63.5	47	32	700	960
45	407145	Grade S	16	18.6	407	378	70	51	36	755	975
48	407148	Grade S	20	23	407	404	76	51	42	790	975

Grade S Rated Rigging Screw (Jaw Eye)

- Generally used for straight or in line tensioning in conjunction with wire rope and or chain assemblies when heavy duty straining and lifting applications are required.
- Manufactured from Grade S high tensile material quenched and tempered hot dipped galvanised finish , suitable for outdoor use, available in metric sizing.
- Meets the design requirements of AS2319 Proof tested to 2 x WLL and minimum break force is 6 x WLL.
- Suitable for industrial lifting purposes.
- Individual proof tested.

AS/NZS 2319

Certified

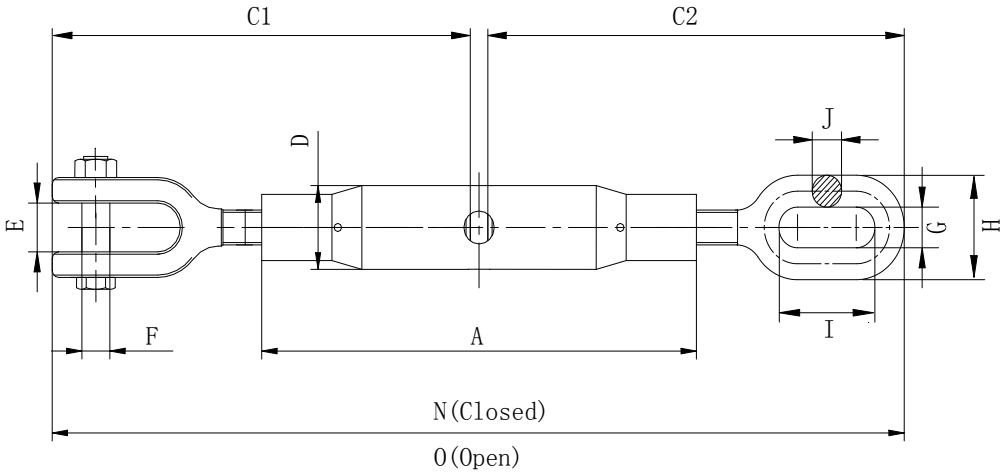
High Tensile Steel

MBF x6 WLL

Proof loaded x2 WLL

Heavy Duty

METRIC THREAD



SIZE (mm)	CODE	WLL (T)	Wt. (kg)	DIMENSIONS (mm)											
				A	D	E	F	G	H	I	C1	C2	J	N	O
12	407212	1.2	0.98	229	25	19	11	14	36	36	183	182	10	353	529
16	407216	2	1.4	229	27	22	14	18	46	40	194	194	12.7	393	539
20	407220	3.2	2.1	229	34	22	16	22	54	50	204	223	16	420	560
24	407224	5	4.85	356	42	32	19	25	63	51	292	292	22	566	826
33	407233	10	8.08	381	51	38	25	34	84	64	320	320	25	635	870

Grade S Rated Rigging Screw (Eye Eye)

- Generally used for straight or in line tensioning in conjunction with wire rope and or chain assemblies when heavy duty straining and lifting applications are required.
- Manufactured from Grade S high tensile material quenched and tempered hot dipped galvanised finish , suitable for outdoor use, available in metric sizing.
- Meets the design requirements of AS2319 Proof tested to 2 x WLL and minimum break force is 6 x WLL.
- Suitable for industrial lifting purposes.
- Individual proof tested.

AS/NZS 2319

Certified

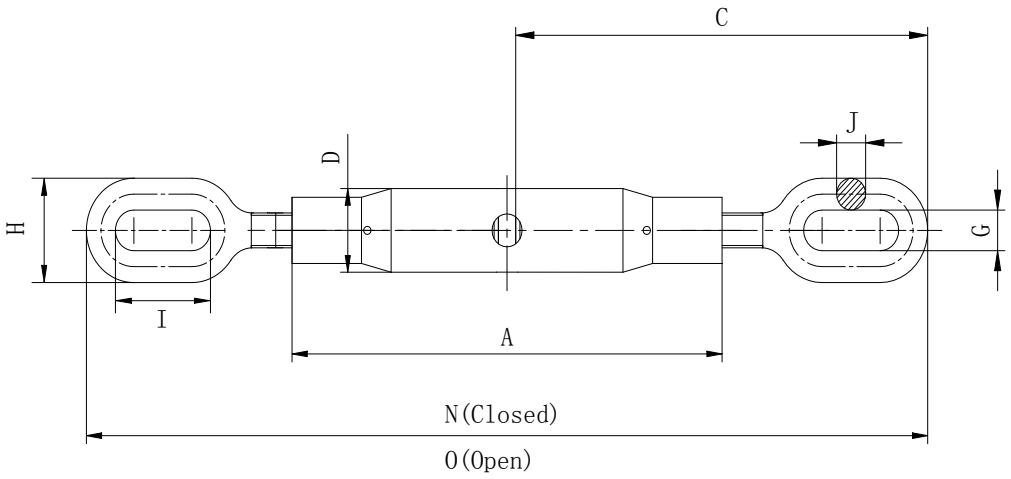
High Tensile Steel

MBF x6 WLL

Proof loaded x2 WLL

Heavy Duty

METRIC THREAD



SIZE (mm)	CODE	WLL (T)	Wt. (kg)	DIMENSIONS (mm)								
				A	D	G	H	I	C	J	N	O
12	407312	1.2	0.98	229	25	14	36	36	182	11	380	555
16	407316	2	1.4	229	27	18	46	40	194	14	410	565
20	407320	3.2	2.0	229	34	22	54	50	204	16	460	585
24	407324	5	4.85	356	42	25	63	51	292	19	595	865
33	407333	10	8.08	381	51	34	84	64	320	25	680	930