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Shackles

CM Super Strong Anchor Shackles



Screw Pin

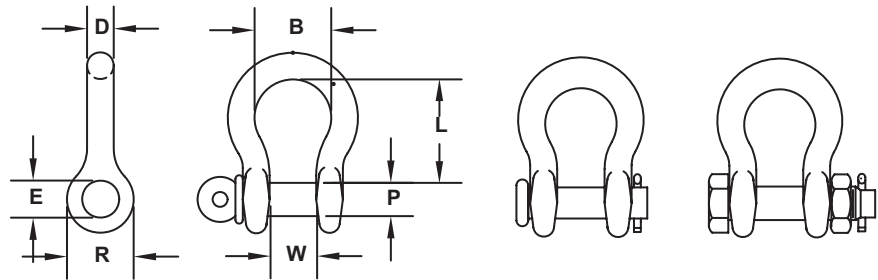


Round Pin



Bolt & Nut

- All shackles meet or exceed Federal Specification RRC-271D
- Working Load Limit and traceability codes shown as permanent marking on body and pin
- Available in powder coated, galvanized and self-colored finishes
- All shackles have alloy quenched and tempered pins
- Shackles made from technically advanced microalloy material
- Load break tests consistently show microalloy outperforms quenched and tempered carbon material
- Shock load testing of assemblies at -30°F consistently demonstrate microalloy outperforms quenched and tempered carbon material*
- Shackles exhibit extreme deformation before failure*
- Special testing and certification including magnetic particle, proof load, and fatigue test available upon request at time of order
- Special products engineering available to fit your special lifting, tie down, and pulling needs
- Design factor 6:1 (Round pin shackles design factor 5:1)



Size D	Working Load Limit	Product Code (Screw Pin)	Product Code (Round Pin)	Product Code (Bolt & Nut)	P	E	W	R	L	B min	Weight
in.	Ton				in.	in.	in.	in.	in.	in.	lb.
3/16	1/2	M645	M345	-	0.250	0.307	0.375	0.625	0.875	0.562	0.06
1/4	3/4	M646	M346	M846	0.312	0.401	0.469	0.875	1.125	0.750	0.12
5/16	1	M647	M347	M847	0.375	0.463	0.531	1.000	1.250	0.812	0.20
3/8	1-1/2	M648	M348	M848	0.438	0.531	0.656	1.125	1.437	0.937	0.30
7/16	2	M649	M349	M849	0.500	0.593	0.750	1.250	1.689	1.062	0.50
1/2	3	M650	M350	M850	0.625	0.718	0.813	1.375	1.875	1.187	0.75
5/8	4-1/2	M651	M351	M851	0.750	0.843	1.063	1.875	2.375	1.500	1.30
3/4	6-1/2	M652	M352	M852	0.875	0.968	1.250	2.125	2.813	1.750	2.30
7/8	8-1/2	M653	M353	M853	1.000	1.109	1.438	2.375	3.312	2.000	3.50
1	10	M654	M354	M854	1.125	1.234	1.688	2.625	3.750	2.312	5.00
1-1/8	12	M655	M355	M855	1.250	1.375	1.812	2.875	4.250	2.625	7.00
1-1/4	14	M656	M356	M856	1.375	1.531	2.031	3.250	4.688	2.875	9.50
1-3/8	17	M666	M366	M866	1.500	1.656	2.250	3.500	5.250	3.250	12.50
1-1/2	20	M657	M357	M857	1.625	1.781	2.375	3.750	5.750	3.375	15.28
1-5/8	24	M685	M385	M885	1.750	1.906	2.625	4.125	6.250	4.000	23.50
1-3/4	30	M677	M377	M877	2.000	2.156	2.875	4.500	7.000	4.500	27.70
2	35	M658	M358	M858	2.250	2.406	3.250	5.250	7.750	5.250	39.00

CM Super Strong Chain Shackles



Screw Pin

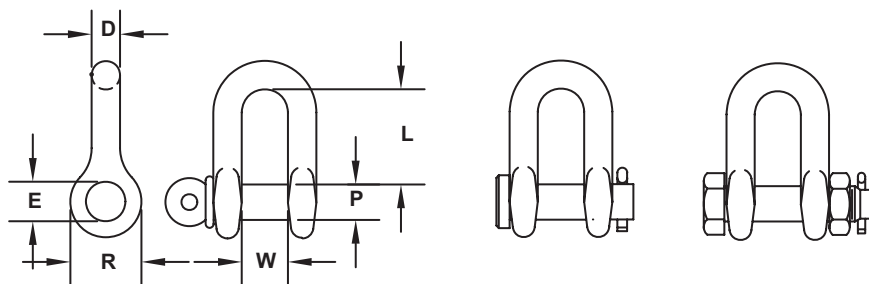


Round Pin



Bolt & Nut

- All shackles meet or exceed Federal Specification RRC-271D
- Working Load Limit and traceability codes shown as permanent marking on body and pin
- Available in powder coated, galvanized and self-colored finishes
- All shackles have alloy quenched and tempered pins
- Shackles made from technically advanced microalloy material
- Load break tests consistently show microalloy outperforms quenched and tempered carbon material
- Shock load testing of assemblies at -30°F consistently demonstrate microalloy outperforms quenched and tempered carbon material*
- Shackles exhibit extreme deformation before failure*
- Special testing and certification including magnetic particle, proof load, and fatigue test available upon request at time of order
- Special products engineering available to fit your special lifting, tie down, and pulling needs
- Design factor 6:1 (Round pin shackles design factor 5:1)



Size D	Working Load Limit	Product Code (Screw Pin)	Product Code (Round Pin)	Product Code (Bolt & Nut)	P	E	W	R	L	Weight
in.	Ton				in.	in.	in.	in.	in.	lb.
1/4	3/4	M746	M546	M946	0.312	0.401	0.469	0.875	0.875	0.12
5/16	1	M747	M547	M947	0.375	0.463	0.531	1.000	1.031	0.20
3/8	1-1/2	M748	M548	M948	0.438	0.531	0.656	1.125	1.250	0.30
1/2	3	M750	M550	M950	0.625	0.718	0.813	1.375	1.625	0.75
5/8	4-1/2	M751	M551	M951	0.750	0.843	1.063	1.875	2.000	1.30
3/4	6-1/2	M752	M552	M952	0.875	0.968	1.250	2.125	2.375	2.30
7/8	8-1/2	M753	M553	M953	1.000	1.109	1.438	2.375	2.812	3.50
1	10	M754	M554	M954	1.125	1.234	1.688	2.625	3.188	5.00
1-1/8	12	M755	M555	M955	1.250	1.375	1.812	2.875	3.562	7.00
1-1/4	14	M756	M556	M956	1.375	1.531	2.031	3.250	3.938	9.50
1-3/8	17	M766	M566	M966	1.500	1.656	2.250	3.500	4.438	12.50
1-1/2	20	M757	M557	M957	1.625	1.781	2.375	3.750	4.875	17.20
1-5/8	24	M785	M585	M985	1.750	1.906	2.625	4.125	5.250	23.50
1-3/4	30	M777	M577	M977	2.000	2.156	2.875	4.500	5.750	27.70
2	35	M758	M558	M958	2.250	2.406	3.250	5.250	6.750	39.00

* Independent lab verified

CM Anchor Shackles



Screw Pin

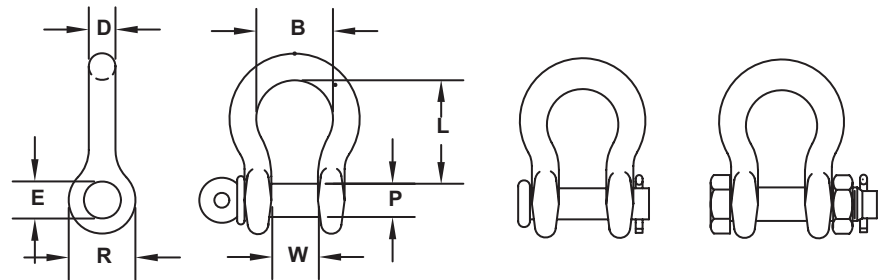


Round Pin



Bolt & Nut

- All shackles meet or exceed Federal Specification RRC-271D
- Working Load Limit and traceability codes shown as permanent marking on body and pin
- Available in powder coated, galvanized and self-colored finishes
- All shackles have alloy quenched and tempered pins
- Shackles exhibit extreme deformation before failure*
- Special testing and certification including magnetic particle, proof load, and fatigue test available upon request at time of order
- Special products engineering available to fit your special lifting, tie down, and pulling needs
- Design factor 5:1



Size D	Working Load Limit	Product Code (Screw Pin)	Product Code (Round Pin)	Product Code (Bolt & Nut)	P	E	W	R	L	B min	Weight
in.	Ton				in.	in.	in.	in.	in.	in.	lb.
3/8	2	M648A	-	M848A	0.438	0.531	0.656	1.125	1.437	0.937	0.30
7/16	2.6	M649A	M349A	M849A	0.500	0.593	0.750	1.250	1.689	1.062	0.50
1/2	3.3	M650A	M350A	M850A	0.625	0.718	0.813	1.375	1.875	1.187	0.75
5/8	5	M651A	M351A	M851A	0.750	0.843	1.063	1.875	2.375	1.500	1.30
3/4	7	M652A	M352A	M852A	0.875	0.968	1.250	2.125	2.813	1.750	2.30
7/8	9.5	M653A	M353A	M853A	1.000	1.109	1.438	2.375	3.312	2.000	3.50
1	12.5	M654A	M354A	M854A	1.125	1.234	1.688	2.625	3.750	2.312	5.00
1-1/8	15	M655A	M355A	M855A	1.250	1.375	1.812	2.875	4.250	2.625	7.00
1-1/4	18	M656A	M356A	M856A	1.375	1.531	2.031	3.250	4.688	2.875	9.50
1-3/8	21	M666A	M366A	M866A	1.500	1.656	2.250	3.500	5.250	3.250	12.50
1-1/2	25	M657A	M357A	-	1.625	1.781	2.375	3.750	5.750	3.375	15.28
1-1/2	30	-	-	M857A	1.625	1.781	2.375	3.750	5.750	3.375	17.20
1-5/8	29	M685A	M385A	-	1.750	1.906	2.625	4.125	6.250	4.000	23.50
1-5/8	35	-	-	M885A	1.750	1.906	2.625	4.125	6.250	4.000	23.50
1-3/4	34	M677A	M377A	-	2.000	2.156	2.875	4.500	7.000	4.500	27.70
1-3/4	40	-	-	M877A	2.000	2.156	2.875	4.500	7.000	4.500	27.70
2	43	M658A	M358A	-	2.250	2.406	3.250	5.250	7.750	5.250	39.00
2	50	-	-	M858A	2.250	2.406	3.250	5.250	7.750	5.250	39.00
2-1/2	85	-	-	MC860AG	2.750	2.906	4.125	6.250	10.500	6.750	90.50
3	120	-	-	MC862AG	3.250	3.406	5.000	6.750	13.000	7.375	137.00

CM Chain Shackles



Screw Pin

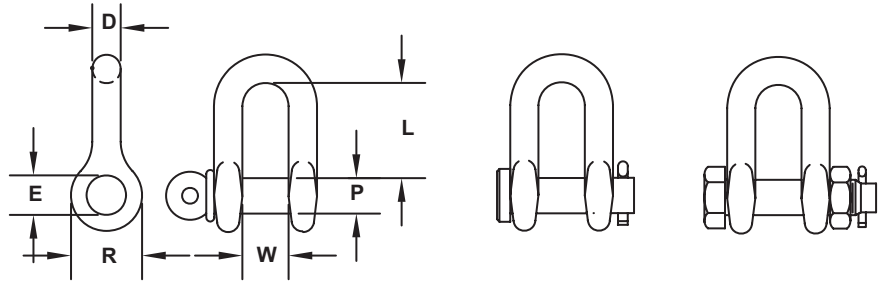


Round Pin



Bolt & Nut

- All shackles meet or exceed Federal Specification RRC-271D
- Working Load Limit and traceability codes shown as permanent marking on body and pin
- Available in powder coated, galvanized and self-colored finishes
- All shackles have alloy quenched and tempered pins
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- Design factor 5:1



Size D	Working Load Limit	Product Code (Screw Pin)	Product Code (Round Pin)	Product Code (Bolt & Nut)	P	E	W	R	L	Weight
in.	Ton				in.	in.	in.	in.	in.	lb.
3/8	2	M748A	-	M948A	0.438	0.531	0.656	1.125	1.250	0.25
1/2	3.3	M750A	M550A	M950A	0.625	0.718	0.813	1.375	1.688	0.75
5/8	5	M751A	M551A	M951A	0.750	0.843	1.063	1.875	2.000	1.30
3/4	7	M752A	M552A	M952A	0.875	0.968	1.250	2.125	2.375	2.30
7/8	9.5	M753A	M553A	M953A	1.000	1.109	1.438	2.375	3.125	3.50
1	12.5	M754A	M554A	M954A	1.125	1.234	1.688	2.625	3.188	5.00
1-1/8	15	M755A	M555A	M955A	1.250	1.375	1.812	2.875	3.560	7.00
1-1/4	18	M756A	M556A	M956A	1.375	1.531	2.031	3.250	3.940	9.50
1-3/8	21	M766A	M566A	M966A	1.500	1.656	2.250	3.500	4.438	12.50
1-1/2	25	M757A	M557A	-	1.625	1.781	2.375	3.750	4.875	17.20
1-1/2	30	-	-	M957A	1.625	1.781	2.375	3.750	4.875	17.20
1-5/8	29	M785A	M585A	-	1.750	1.906	2.625	4.125	5.250	23.50
1-5/8	35	-	-	M985A	1.750	1.906	2.625	4.125	5.250	23.50
1-3/4	34	M777A	M577A	-	2.000	2.156	2.875	4.500	5.750	27.70
1-3/4	40	-	-	M977A	2.000	2.156	2.875	4.500	5.750	27.70
2	43	M758A	M558A	-	2.250	2.406	3.250	5.250	6.750	39.00
2	50	-	-	M958A	2.250	2.406	3.250	5.250	6.750	39.00

* Independent lab verified

CM Carbon Anchor Shackles



Screw Pin

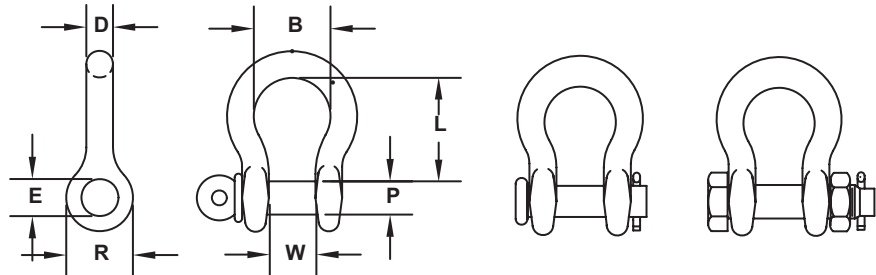


Round Pin



Bolt & Nut

- These shackles meet requirements of Federal Specification RR-C-271D Amendment 1
- All shackle pins are forged from alloy steel, heat treated and tempered to give greater strength
- All shackles are marked with size (inches and millimeters) and working load limit in tons
- Ultimate strength equals 5 times working load limit
- All bolt, nut & cotter shackles have thread protected ends
- Galvanized per ASTM A153
- Standard industry tolerances apply
- Design factor 5:1



Size D	Working Load Limit	Product Code (Screw Pin)	Product Code (Round Pin)	Product Code (Bolt & Nut)	P	E	W	R	L	B min	Weight
in.	Ton				in.	in.	in.	in.	in.	in.	lb.
3/16	1/3	MC645G	MC345G	-	0.250	0.307	0.375	0.625	0.875	0.562	0.06
1/4	1/2	MC646G	MC346G	MC846G	0.312	0.401	0.469	0.875	1.125	0.750	0.12
5/16	3/4	MC647G	MC347G	MC847G	0.375	0.463	0.531	1.000	1.250	0.812	0.20
3/8	1	MC648G	MC348G	MC848G	0.438	0.531	0.656	1.125	1.437	0.937	0.30
1/2	2	MC650G	MC350G	MC850G	0.625	0.718	0.813	1.375	1.875	1.187	0.75
5/8	3-1/4	MC651G	MC351G	MC851G	0.750	0.843	1.063	1.875	2.375	1.500	1.30
3/4	4-3/4	MC652G	MC352G	MC852G	0.875	0.968	1.250	2.125	2.813	1.750	2.30
7/8	6-1/2	MC653G	MC353G	MC853G	1.000	1.109	1.438	2.375	3.312	2.000	3.50
1	8-1/2	MC654G	MC354G	MC854G	1.125	1.234	1.688	2.625	3.750	2.312	5.00
1-1/8	9-1/2	MC655G	MC355G	MC855G	1.250	1.375	1.812	2.875	4.250	2.625	7.00
1-1/4	12	MC656G	MC356G	MC856G	1.375	1.531	2.031	3.250	4.688	2.875	9.50
1-3/8	13-1/2	MC666G	MC366G	MC866G	1.500	1.656	2.250	3.500	5.250	3.250	12.50
1-1/2	17	MC657G	MC357G	MC857G	1.625	1.781	2.375	3.750	5.750	3.375	15.28
1-5/8	20	MC685G	MC385G	MC885G	1.750	1.906	2.625	4.125	6.250	4.000	23.50
1-3/4	25	MC677G	MC377G	MC877G	2.000	2.156	2.875	4.500	7.000	4.500	27.70
2	35	M658G	M358G	M858G	2.250	2.406	3.250	5.250	7.750	5.250	39.00
2-1/2	55	-	-	MC860G	2.750	2.905	4.125	6.250	10.500	6.750	90.50

CM Carbon Chain Shackles



Screw Pin

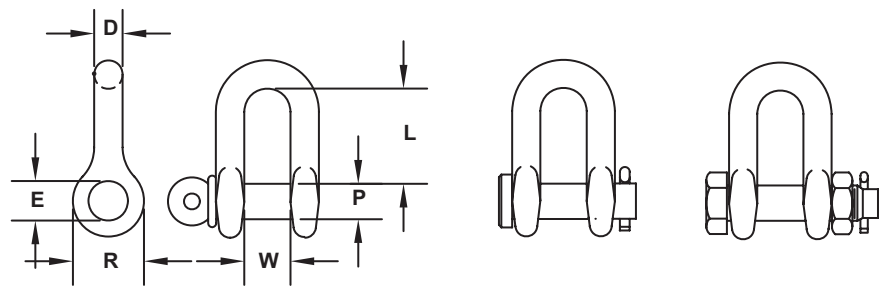


Round Pin



Bolt & Nut

- Shackles meet or exceed Federal Specification RRC-271D
- Working Load Limit and traceability codes shown as permanent marking on body and pin
- Available in powder coated, galvanized and self-colored finishes
- Special products engineering available to fit your special lifting, tie down, and pulling needs
- Design factor 5:1

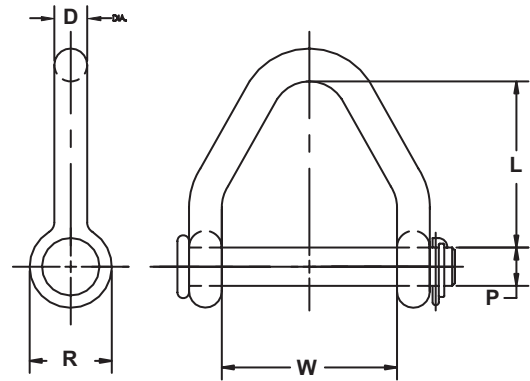


Size D	Working Load Limit	Product Code (Screw Pin)	Product Code (Round Pin)	Product Code (Bolt & Nut)	P	E	W	R	L	Weight
in.	Ton				in.	in.	in.	in.	in.	lb.
1/4	1/2	MC746G	MC546G	MC946G	0.312	0.401	0.469	0.875	0.875	0.11
5/16	3/4	MC747G	MC547G	MC947G	0.375	0.463	0.531	1.000	1.031	0.17
3/8	1	MC748G	MC548G	MC948G	0.438	0.531	0.656	1.125	1.250	0.25
1/2	2	MC750G	MC550G	MC950G	0.625	0.718	0.813	1.375	1.625	0.75
5/8	3-1/4	MC751G	MC551G	MC951G	0.750	0.843	1.063	1.875	2.000	1.30
3/4	4-3/4	MC752G	MC552G	MC952G	0.875	0.968	1.250	2.125	2.375	2.30
7/8	6-1/2	MC753G	MC553G	MC953G	1.000	1.109	1.438	2.375	2.812	3.50
1	8-1/2	MC754G	MC554G	MC954G	1.125	1.234	1.688	2.625	3.188	5.00
1-1/8	9-1/2	MC755G	MC555G	MC955G	1.250	1.375	1.812	2.875	3.562	7.00
1-1/4	12	MC756G	MC556G	MC956G	1.375	1.531	2.031	3.250	3.938	9.50
1-3/8	13-1/2	MC766G	MC566G	MC966G	1.500	1.656	2.250	3.500	4.438	12.50
1-1/2	17	MC757G	MC557G	MC957G	1.625	1.781	2.375	3.750	4.875	17.20
1-5/8	20	MC785G	MC585G	MC985G	1.750	1.906	2.625	4.125	5.250	23.50
1-3/4	25	MC777G	MC577G	MC977G	2.000	2.156	2.875	4.500	5.750	27.70
2	35	M758G	M558G	M958G	2.250	2.406	3.250	5.250	6.750	39.00

Carbon Web Sling Shackle



- Finish: hot dip galvanized
- Linch pin (zinc plated) as shown furnished as standard-cotter or hair pin can be furnished on special order
- Shackle body: carbon steel, heat treated
- Shackle pin: alloy steel, heat treated
- Tolerances: 11/32" unless otherwise indicated
- Design ultimate strength equals 4 times the working load limit

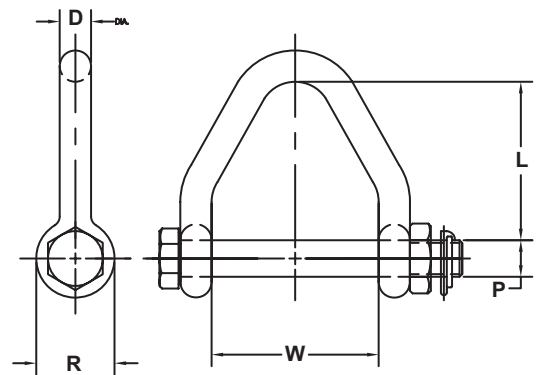


Product Code	Pin Number	Linch Pin Number	Working Load Limit	P	D	L	W	R	Weight
			lb.	in.	in.	in.	in.	in.	lb.
M702	2X702	65930	8,050	0.75	0.63	2.25	2.00	1.63	1.70
M703	2X703	65930	13,050	0.88	0.75	3.25	3.00	1.88	2.86
M704	2X704	65930	10,800	0.88	0.75	3.75	4.00	1.88	3.15
M705	2X705	65934	18,000	1.00	0.88	4.25	5.00	2.13	4.75
M706	2X706	65934	18,000	1.13	1.00	4.75	6.00	2.38	6.75
M706H	2X706H	65934	23,850	1.25	1.13	4.75	6.00	2.63	9.80

Alloy Web Sling Shackle



- Web Sling Shackles can be used on web slings from 3 to 6 inches in width
- Utilize a bolt and nut with linch style pin to secure the assembly in place
- All shackles are galvanized for longer life
- Marked with working load limit (WLL) and size



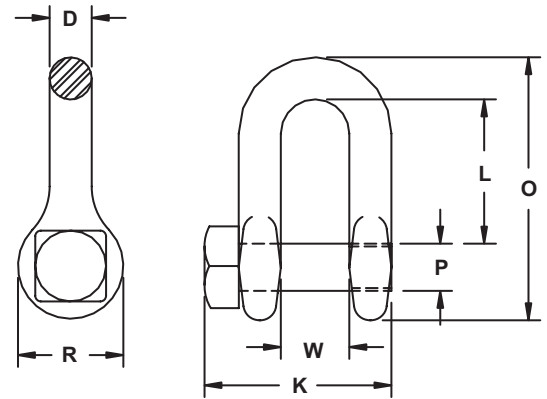
Product Code	Pin Number	Linch Pin Number	Working Load Limit	P	D	L	W	R	Weight
			lb.	in.	in.	in.	in.	in.	lb.
M703A	2X8703A	65930	13,050	0.88	0.75	3.25	3.00	1.88	3.01
M704A	2X8704A	65930	14,500	0.88	0.75	3.75	4.00	1.88	3.16
M705A	2X8705A	65934	19,000	1.00	1.00	4.25	5.00	2.38	6.04
M706A	2X8706A	65934	22,500	1.13	1.13	4.75	6.00	2.63	9.02

CM Trawling Shackle

Load rated trawling chain shackles are used for various applications, such as on trawl doors, the rigging of nets, and areas where critical loads are applied.



- Heat treated bodies
- Heat treated alloy pins
- Square head pins for convenience in wrench tightening and loosening
- Proof load 2.2 times working load limit
- Ultimate strength 6 times working load limit
- Durable orange powder coat finish

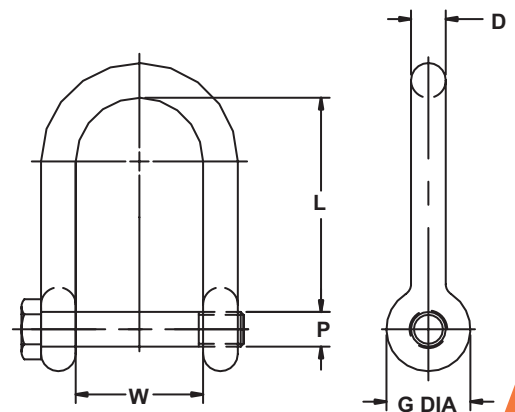


Product Code	Working Load Limit	D	P	W	L	O	R	K	Weight
	lb.	in.	in.	in.	in.	in.	in.	in.	lb.
M449	4,000	0.438	0.500	0.719	1.500	2.750	1.125	1.906	0.43
M450	6,000	0.500	0.625	0.813	1.688	3.125	1.250	2.063	0.60
M451	9,000	0.625	0.750	1.063	2.000	3.780	1.500	2.625	1.30
M452	13,000	0.750	0.875	1.250	2.375	4.530	1.875	3.125	2.20
M453	17,000	0.875	1.000	1.438	2.812	5.750	2.125	3.625	3.00
M454	20,000	1.000	1.125	1.688	3.188	5.938	2.375	4.438	4.70

CM Long Reach Shackles



- Alloy Steel
- Load Rated
- WLL forged on body
- Meets the requirements of ASME B30.26
- Design factor of 5:1
- Offered in self-colored or durable orange powder coat finish

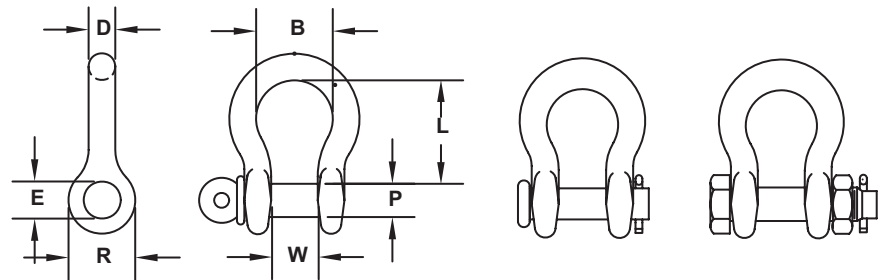


Working Load Limit	Screw Pin Product Code		Weight	Bolt Type Product Code		Weight	P	D	L	W	G
	Self Colored	Painted		Self Colored	Painted						
lb.			lb.			lb.	in.	in.	in.	in.	in.
7,000	M7151	M7151P	1.80	M9151	M9151P	1.95	0.75	0.63	4.00	2.25	1.57
10,000	M7152	M7152P	2.72	M9152	M9152P	3.21	0.88	0.75	4.56	2.75	1.81
19,000	M7154	M7154P	5.86	M9154	M9154P	6.31	1.00	1.00	5.50	3.25	2.38
28,000	M7156	M7156P	11.90	M9156	M9156P	12.90	1.38	1.25	6.25	3.88	3.06
34,000	M7157	M7157P	19.60	M9157	M9157P	20.70	1.63	1.50	7.00	4.50	3.50
50,000	M7177	M7177P	30.70	M9177	M9177P	33.30	2.00	1.75	8.00	5.25	4.00

DNV Shackles



- Assembly consists of shackle body, bolt, nut & cotter
- Galvanized coating for protective finish
- Certified to meet DNV standard 2.7-1 Offshore Containers
- Assemblies comply with DNV rules for lifting appliances
- Exceeds Charpy V impact strength of ASTM A952 42J at 20°C (31 ft-lb at -4°F)
- Each shackle is serialized individually and batch coded for complete traceability of material and manufacturing
- Certification of compliance supplied with each shipment
- Shackles are 100% proof tested at the manufacturing facility at 2x WLL
- Designed for use with chain, wire rope, and synthetic slings
- Designed factor of 5:1 or higher in accordance with DNV 2.7-1 requirements



Size D	Working Load Limit	Product Code	P	E	W	R	L	B min	Weight
in.	ton		in.	in.	in.	in.	in.	in.	lb.
3/4"	7.0	M852DNV	0.875	0.968	1.250	2.125	2.813	1.75	2.3
1"	12.5	M854ADNV	1.125	1.234	1.688	2.625	3.750	2.312	5.0
1-1/8"	15.0	M855ADNV	1.250	1.375	1.812	2.875	4.250	2.625	7.0
1-1/4"	18.0	M856ADNV	1.375	1.531	2.031	3.250	4.688	2.875	9.5
1-1/2"	30.0	M857ADNV	1.625	1.781	2.375	3.750	5.750	3.375	17.2