



SHACKLES



Vanguard Steel Ltd.



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SHACKLES

TABLE OF CONTENTS

Criteria	1
Econo-Load Rated Anchor	5
'Golden Pin' Anchor	2
'Golden Pin' Chain	3
'Golden Pin' Safety Anchor	4
Non-Rated Anchor	7
T-316 Stainless Steel Anchor	6



'Golden Pin'® Shackles

Over the past 30 years, Vanguard's 'Golden Pin'® Shackles have earned the reputation of 'top-of-the-line' shackles with indicated load carrying capacity, making them the preferred choice for all critical rigging applications. Design Factor 6:1.



Screw Pin Anchor Shackles



Bolt Type Anchor Shackles



Screw Pin Chain Shackles

Features:

Heat treated Carbon Steel bows with Alloy pins - quenched & tempered

- The metallic coating of 'Golden Pin' shackle pins allows for closer thread tolerances than is possible for shackles with an extra layer of paint
- To assure total traceability, 'Golden Pin' Shackles are embossed with:
 - Vanguard I.D.
 - Size
 - WLL (Working Load Limit)
 - Alloy Pin I.D.
- Working Load Limits (WLL) are based on shackles in new condition and are subject to downward adjustment in case of side loading:
 - 45° from vertical in-line: WLL reduced to 70%
 - 90° from vertical in-line: WLL reduced to 50%

Warning:

- DO NOT:**
- Exceed Working Load Limits
 - Exceed 120° Incline Angle
 - Re-Use Shackles or Pins Which are Visibly Deformed
 - Use Shackles Which are Worn in the Crown or Pin by More Than 10% of Original Diameter
 - Use Screw Pin Shackles if the Pin Can Roll Under Load
 - Proof Test Shackles Beyond 2x the Working Load Limit

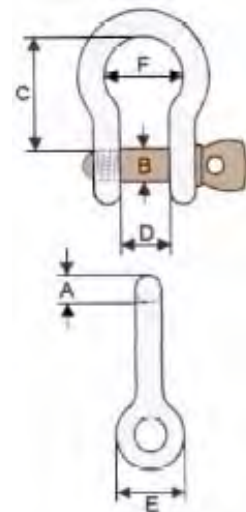


"Golden Pin" Anchor Shackles

Meeting the performance requirements of:
 U.S. Fed. Specs RR-C-271D, Type IV A, grade A, Class 2.



Size	Pin Diameter	Dimension Inches				WLL (Tons)	Weight (lbs)	Product Code
		C	D	E	F			
A	B							
3/16"	1/4"	0.93	0.39	0.59	0.64	1/3	0.06	29020012
1/4"	5/16"	1.14	0.49	0.70	0.75	1/2	0.12	29020016
5/16"	3/8"	1.23	0.53	0.83	0.80	3/4	0.18	29020020
3/8"	7/16"	1.41	0.69	0.98	1.01	1	0.32	29020024
7/16"	1/2"	1.70	0.72	1.06	1.13	1-1/2	0.45	29020028
1/2"	5/8"	1.83	0.83	1.18	1.25	2	0.68	29020032
5/8"	3/4"	2.36	1.06	1.55	1.67	3-1/4	1.36	29020040
3/4"	7/8"	2.76	1.24	1.78	1.98	4-3/4	2.24	29020048
7/8"	1"	3.29	1.42	2.09	2.25	6-1/2	3.50	29020056
1"	1-1/8"	3.69	1.75	2.35	2.66	8-1/2	5.00	29020100
1-1/8"	1-1/4"	4.23	1.80	2.71	2.79	9-1/2	7.65	29020108
1-1/4"	1-3/8"	4.63	2.12	3.01	3.15	12	10.40	29020116
1-3/8"	1-1/2"	5.17	2.30	3.32	3.60	13-1/2	13.80	29020124
1-1/2"	1-5/8"	5.67	2.39	3.63	3.85	17	17.90	29020132
1-3/4"	2"	7.06	2.96	4.23	4.99	25	27.90	29020148
2"	2-1/4"	7.75	3.31	5.11	5.59	35	42.70	29020200
2-1/2"	2-3/4"	10.25	4.00	5.75	7.00	55	85.00	29020232



Safety Factor: 6

WARNING: If the pin, after a 1/4 turn, remains hard to remove, there is a good chance that the shackle has been overloaded beyond the designed working load limit (WLL) and it, therefore, must be discarded.

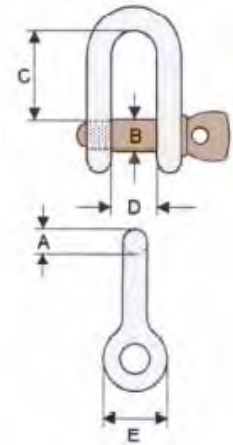


"Golden Pin" Chain Shackles

Meeting the performance requirements of:
 U.S. Fed. Specs RR-C-271D, Type IV A, grade A, Class 2.



Size	Pin Diameter	Dimension Inches			WLL (Tons)	Weight (lbs)	Product Code
		A	B	E			
1/4"	5/16"	0.83	0.47	0.71	1/2	0.11	39120016
5/16"	3/8"	0.98	0.47	0.75	3/4	0.17	39120020
3/8"	7/16"	1.22	0.63	0.96	1	0.24	39120024
7/16"	1/2"	1.50	0.75	1.06	1-1/2	0.40	39120028
1/2"	5/8"	1.61	0.83	1.22	2	0.59	39130032
5/8"	3/4"	2.01	1.10	1.57	3-1/4	1.20	39120040
3/4"	7/8"	2.41	1.25	1.81	4-3/4	2.20	39120048
7/8"	1"	2.80	1.42	2.13	6-1/2	3.20	39120056
1"	1-1/8"	3.15	1.77	2.36	8-1/2	4.80	39120100
1-1/8"	1-1/4"	3.50	1.85	2.69	9-1/2	6.80	39120108
1-1/4"	1-3/8"	3.97	2.05	3.00	12	9.00	39120116
1-3/8"	1-1/2"	4.43	2.25	3.31	13-1/2	13.00	39120124
1-1/2"	1-5/8"	4.80	2.39	3.68	17	16.00	39120132
1-3/4"	2"	5.78	2.88	4.19	25	29.00	39120148
2"	2-1/4"	6.75	3.25	5.00	35	43.00	39120200



Safety Factor: 6

WARNING: If the pin, after a 1/4 turn, remains hard to remove, there is a good chance that the shackle has been overloaded beyond the designed working load limit (WLL) and it, therefore, must be discarded.

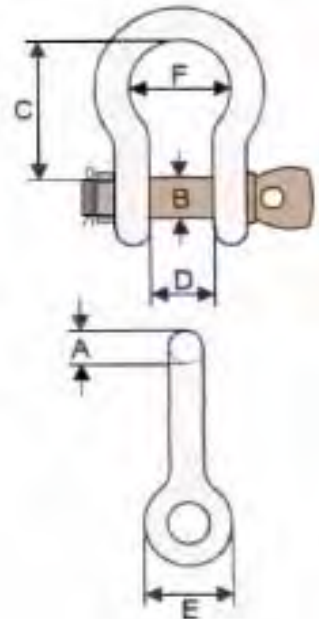


"Golden Pin" Bolt Type Anchor Shackles

Meeting the performance requirements of:
 U.S. Fed. Specs RR-C-271D, Type IV A, grade A, Class 3.



Size	Pin Diameter	Dimension Inches				WLL (Tons)	Weight (lbs)	Product Code
		A	B	C	D			
1/4"	5/16"	1.14	0.49	0.70	0.75	1/2	0.12	29140016
5/16"	3/8"	1.23	0.53	0.83	0.80	3/4	0.18	29140020
3/8"	7/16"	1.41	0.69	0.98	1.01	1	0.32	29140024
7/16"	1/2"	1.70	0.72	1.06	1.13	1-1/2	0.45	29140028
1/2"	5/8"	1.83	0.83	1.18	1.25	2	0.68	29140032
5/8"	3/4"	2.36	1.06	1.55	1.67	3-1/4	1.36	29140040
3/4"	7/8"	2.76	1.24	1.78	1.98	4-3/4	2.24	29140048
7/8"	1"	3.29	1.42	2.09	2.25	6-1/2	3.50	29140056
1"	1-1/8"	3.69	1.75	2.35	2.66	8-1/2	5.00	29140100
1-1/8"	1-1/4"	4.23	1.80	2.71	2.79	9-1/2	7.65	29140108
1-1/4"	1-3/8"	4.63	2.12	3.01	3.15	12	10.40	29140116
1-3/8"	1-1/2"	5.17	2.30	3.32	3.60	13-1/2	13.80	29140124
1-1/2"	1-5/8"	5.67	2.39	3.63	3.85	17	17.90	29140132
1-3/4"	2"	7.06	2.96	4.23	4.99	25	27.90	29140148
2"	2-1/4"	7.75	3.31	5.11	5.59	35	42.70	29140200
2-1/2"	2-3/4"	10.25	4.00	5.75	7.00	55	85.00	29140232
3"	3-1/4"	13.00	5.00	6.50	7.88	85	125.00	29140300



Safety Factor: 6

NOTE: Bolt-type shackles are recommended for long-term service installations as well as for applications where there is a possibility that the pin could rotate under load.

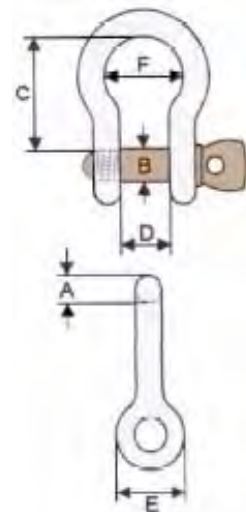


" Econo" Load Rated Anchor Shackles

Meeting the performance requirements of:
 U.S. Fed. Specs RR-C-271D, Type IV A, grade A, Class 2.



Size	Pin Diameter	Dimension Inches				WLL (Tons)	Weight (lbs)	Product Code
		C	D	E	F			
3/16"	1/4"	0.93	0.39	0.59	0.64	1/3	0.06	29025012
1/4"	5/16"	1.14	0.49	0.70	0.75	1/2	0.12	29025016
5/16"	3/8"	1.23	0.53	0.83	0.80	3/4	0.18	29025020
3/8"	7/16"	1.41	0.69	0.98	1.01	1	0.32	29025024
7/16"	1/2"	1.70	0.72	1.06	1.13	1-1/2	0.45	29025028
1/2"	5/8"	1.83	0.83	1.18	1.25	2	0.68	29025032
5/8"	3/4"	2.36	1.06	1.55	1.67	3-1/4	1.36	29025040
3/4"	7/8"	2.76	1.24	1.78	1.98	4-3/4	2.24	29025048
7/8"	1"	3.29	1.42	2.09	2.25	6-1/2	3.50	29025056
1"	1-1/8"	3.69	1.75	2.35	2.66	8-1/2	5.00	29025100
1-1/8"	1-1/4"	4.23	1.80	2.71	2.79	9-1/2	7.65	29025108
1-1/4"	1-3/8"	4.63	2.12	3.01	3.15	12	10.40	29025116
1-3/8"	1-1/2"	5.17	2.30	3.32	3.60	13-1/2	13.80	29025124
1-1/2"	1-5/8"	5.67	2.39	3.63	3.85	17	17.90	29025132
1-3/4"	2"	7.06	2.96	4.23	4.99	25	27.90	29025148
2"	2-1/4"	7.75	3.31	5.11	5.59	35	42.70	29025200
2-1/2"	2-3/4"	10.25	4.00	5.75	7.00	55	85.00	29025232



Safety Factor: 5

WARNING: If the pin, after a 1/4 turn, remains hard to remove, there is a good chance that the shackle has been overloaded beyond the designed working load limit (WLL) and it, therefore, must be discarded.

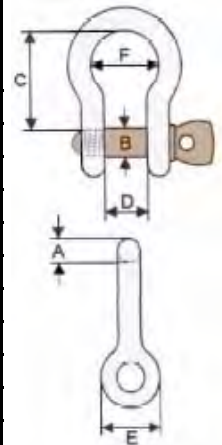


Stainless Steel Anchor Shackles

Made from AISI 316 stainless rod.
Bright polished



Size	Dimension Inches							WLL (Tons)	Weight (lbs)	Proof Load (lbs)	Product Code
	A	B	C	D	E	F	G				
3/16"	0.19	0.25	0.88	0.38	0.56	0.60	1.47	1/4	0.06	1,103	39130012
1/4"	0.25	0.31	1.13	0.47	0.61	0.78	1.84	1/4	0.12	1,103	39130016
5/16"	0.31	0.38	1.22	0.53	0.75	0.84	2.09	1/3	0.18	1,470	39130020
3/8"	0.38	0.44	1.44	0.66	0.91	1.03	2.49	1/2	0.32	2,205	39130024
7/16"	0.44	0.50	1.69	0.75	1.06	1.16	2.91	2/3	0.45	2,940	39130028
1/2"	0.50	0.63	1.88	0.81	1.19	1.31	3.28	1.00	0.68	4,410	39130032
5/8"	0.63	0.75	2.38	1.06	1.50	1.69	4.19	1-1/2	1.36	6,615	39130040
3/4"	0.75	0.88	2.81	1.25	1.81	2.00	4.97	2-1/4	2.24	11,025	39130048
7/8"	0.88	1.00	3.31	1.44	2.09	2.28	5.83	3.00	3.50	13,230	39130056
1"	1.00	1.13	3.75	1.69	2.38	2.69	6.56	4.00	5.00	17,640	39130100



WARNING: Never Exceed Working Load Limits

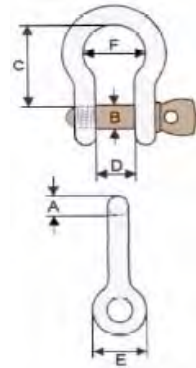


Non-Rated Anchor Shackles

An economical alternative for a wide range of uses
No WLL indicated, must never be used for lifting applications.



Size	Pin Diameter	Dimension Inches				Weight (lbs)	Product Code
		A	B	C	D		
3/16"	1/4"	0.93	0.39	0.59	0.64	0.06	29465012
1/4"	5/16"	1.14	0.49	0.70	0.75	0.12	29465016
5/16"	3/8"	1.23	0.53	0.83	0.80	0.18	29465020
3/8"	7/16"	1.41	0.69	0.98	1.01	0.32	29465024
7/16"	1/2"	1.70	0.72	1.06	1.13	0.45	29465028
1/2"	5/8"	1.83	0.83	1.18	1.25	0.68	29465032
5/8"	3/4"	2.36	1.06	1.55	1.67	1.36	29465040
3/4"	7/8"	2.76	1.24	1.78	1.98	2.24	29465048
7/8"	1"	3.29	1.42	2.09	2.25	3.50	29465048
1"	1-1/8"	3.69	1.75	2.35	2.66	5.00	29465100



WARNING: Made entirely from C-1010 Carbon Steel, These shackles are NOT intended for use critical application and are not guaranteed in terms of any load bearing capacity.