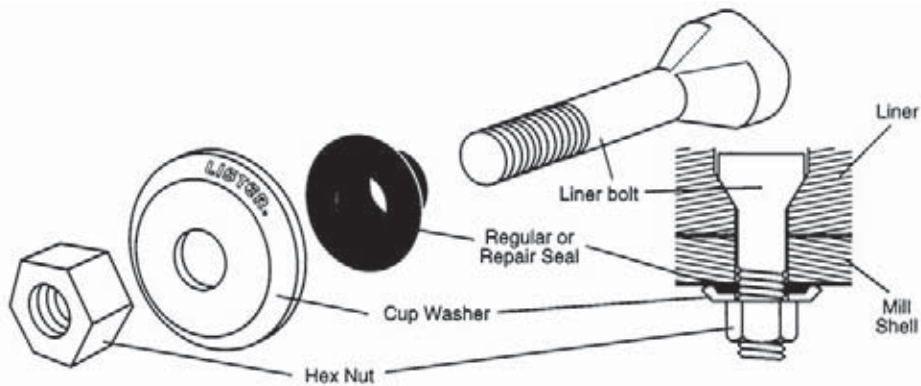


Grinding mill liner bolt specifications



Torque values assume bolt is dry. Lubricants, planting, etc., can reduce these values

Lister Grade 2

Bolt Diameter	Proof Load PSI	Tensile Strength PSI min.	Recommended Torque		
			UNC	UNF	8-UN
Imperial					
in.			ft./lb.	ft./lb.	ft./lb.
3/4	55,000	74,000	190	213	0
7/8	33,000	60,000	194	214	0
1	33,000	60,000	291	318	291
1-1/8	33,000	60,000	412	462	427
1-1/4	33,000	60,000	581	644	600
1-1/2	33,000	60,000	1,012	1,138	1,074
1-3/4	33,000	60,000	1,596	1,840*	1,774
2	33,000	60,000	2,400	2,774*	2,659

Lister Grade 2

Bolt Diameter	Proof Load PSI	Tensile Strength PSI min.	Recommended Torque		
			UNC	UNF	8-UN
Imperial					
in.			ft./lb.	ft./lb.	ft./lb.
3/4	120,000	150,000	434	485	0
7/8	120,000	150,000	701	772	0
1	120,000	150,000	1,050	1,149	1,050
1-1/8	120,000	150,000	1,488	1,669	1,541
1-1/4	120,000	150,000	2,100	2,325	2,167
1-1/2	120,000	150,000	3,653	4,111	3,879

*12-UN

Lister Grade 5

Bolt Diameter	Proof Load PSI	Tensile Strength PSI min.	Recommended Torque		
			UNC	UNF	8-UN
Imperial					
in.			ft./lb.	ft./lb.	ft./lb.
3/4	85,000	120,000	307	343	0
7/8	85,000	120,000	496	546	0
1	85,000	120,000	743	813	743
1-1/8	74,000	105,000	927	1,040	960
1-1/4	74,000	105,000	1,308	1,449	1,350
1-1/2	74,000	105,000	2,276	2,561	2,417

ASTM-A449

Bolt Diameter	Proof Load PSI	Tensile Strength PSI min.	Recommended Torque	
			UNC	UNF
Imperial				
in.			ft./lb.	ft./lb.
1-3/4	55,000	90,000	2,571	2,815
2	55,000	90,000	3,867	4,285

ASTM-A354

Bolt Diameter	Proof Load PSI	Tensile Strength PSI min.	Recommended Torque	
			UNC	UNF
Imperial				
in.			ft./lb.	ft./lb.
Grade BC				
1-3/4	105,000	125,000	4,832	5,290
2	105,000	125,000	7,267	8,051
Grade BD				
1-3/4	120,000	150,000	5,763	6,309
2	120,000	150,000	8,667	9,603