

QUALITY AND RELIABILITY
FOR YOUR BUILDING



TitanGrade

2021 catalog

Strength Classification

Strength Classification	Head Marking	Diameter Range	Minimum Tensile Stress	Minimum Yield Stress	Proof Stress	Hardness Rockwell - HRC
Imperial Sysytem						
SAE Grade 9		1/4 to 1.1/8"	170,000 PSI 1172 MPa	150,000 PSI 1034 MPa	136,000 PSI 938 MPa	36 - 42 HRc
Titan Grade A9		1/4 to 1.1/2"	180,000 PSI 1241 MPa	160,000 PSI 1103 MPa	144,000 PSI 993 MPa	39 - 43 HRc
Metric Sysytem						
Class 10.9		M10 to M33	1040 Mpa (150,840PSI)	940 MPa (136,335 PSI)	830 MPa (120,380 PSI)	32 - 39 HRc
Class 12.9		M10 to M33	1220 Mpa (176,946PSI)	1100 MPa (159,542 PSI)	970 MPa (140,687 PSI)	39 - 44 HRc

Suggested Tightening Torque Values

- Torques given in the following table are indicative only.
- Torque has an approximately up to $\pm 35\%$ error on desired tension depending on many joint related parameters.
- Torque has been estimated using a nut factor of 0.19 which generally represents Blackened surface with light oil (mostly as supplied condition)
- Torque has been estimated to achieve 65% of the proof load

Imperial System - Titan Grade A9 bolts

Thread Diameter (in)	7/16"	1/2"	9/16"	5/8"	3/4"	7/8"	1"	1.1/8"	1.1/4"
UNC Torque	70	107	154	212	376	605	907	1286	1812
UNC Torque	78	119	171	239	417	665	989	1435	1998
UNC Torque	95	144	208	287	510	820	1230	1743	2457
UNC Torque	105	162	231	324	566	901	1341	1945	2709

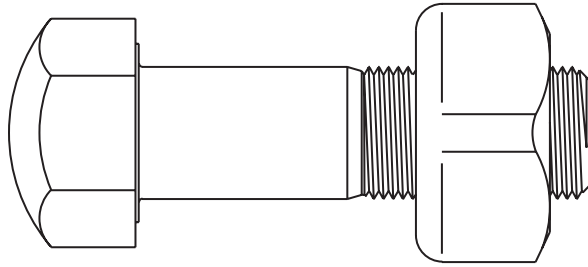
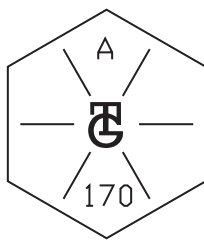
Metric Fine Thread Series - Titan Grade 10.9 Bolts

Thread Diameter (in)	7/16"	1/2"	9/16"	5/8"	3/4"	7/8"	1"	1.1/8"	1.1/4"
Thread Size	70	107	154	212	376	605	907	1286	1812
Torque (Nm)	78	119	171	239	417	665	989	1435	1998
Torque (lb.ft)	95	144	208	287	510	820	1230	1743	2457

Metric Fine Thread Series - Titan Grade 12.9 Bolts

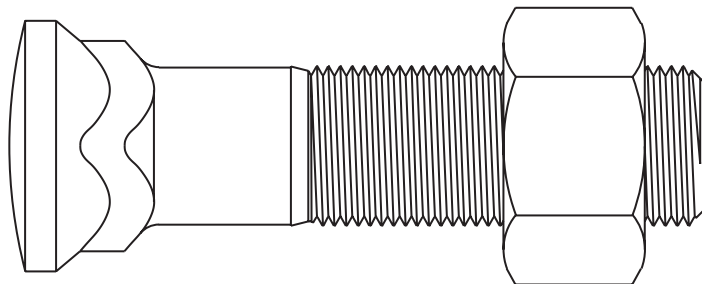
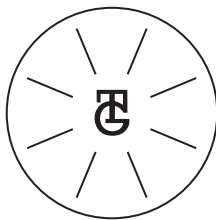
Thread Diameter (in)	7/16"	1/2"	9/16"	5/8"	3/4"	7/8"	1"	1.1/8"	1.1/4"
Thread Size	70	107	154	212	376	605	907	1286	1812
Torque (Nm)	78	119	171	239	417	665	989	1435	1998
Torque (lb.ft)	95	144	208	287	510	820	1230	1743	2457

.Track Bolt & Nuts



.Plow Bolts & Nuts

(Cutting edges)



OEM for:

KOMATSU | CATERPILLAR | HITACHI

Plow Bolt & Nuts

Part Number	Cat Part number	Size	Length	Qty Items per Carton (aprox.)
PB121	-	1/2	1	
PB12114	-	1/2	1 1/4	
PB12112	-	1/2	1 1/2	
PB12134	-	1/2	1 3/4	
PB122	-	1/2	2	
PN12	-	1/2		
PW12	-	1/2		
PB58134	4F3653	5/8	1 3/4	260
PB582	4F654	5/8	2	240
PB58214	4F3656	5/8	2 1/4	220
PB58212	3F5108	5/8	2 1/2	150
PB58234	4F3657	5/8	2 3/4	180
PB583	4F3658	5/8	3	100
PB58312	4F3665	5/8	3 1/2	145
PB584	4F3671	5/8	4	120
PB58412		5/8	4 1/2	110
PN58	4K0367	5/8		550
PW58	5P8247	5/8		1,000
PB34214	4F7827	3/4	2 1/4	140
PB34212		3/4	2 1/2	130
PB34234	5J4771	3/4	2 3/4	80
PB34318	1J6762			110
PB34314		3/4	3 1/4	100
PB34312		3/4	3 1/2	90
PB34334	5F8933	3/4	3 3/4	100
PB34414	1J0962	3/4	4 1/4	80
PN34	2J3506	3/4		250
PW38	5P8248	3/4		850
PB78212	5J4772	7/8	2 1/2	100
PB78234	6F0196	7/8	2 3/4	90
PB783	5J2409	7/8	3	55
PB78312	2J2548	7/8	3 1/2	65
PB784		7/8	4	60
PB78414	2J5458	7/8	4 1/4	50
PN78	2J3505	7/8		240
PW78	5P8249	7/8		580

Plow Bolt & Nuts

Part Number	Cat Part number	Size	Lengh	
PB1143		1 1/4	3	
PB114334	6V6535	1 1/4	3 3/4	
PB114418	5P8823	1 1/4	4 1/8	
PB1145		1 1/4	5	
PB114512		1 1/4	5 1/2	
PB1146		1 1/4	6	
PB1147		1 1/4	7	
PN114	3K9770	1 1/4		
PN114C		1 1/4		
PW114STD				
PW114HD	4K0684	1 1/4	7.0MM THICK	
PB138412		1 3/8	4 1/2	10
PB138512		1 3/8	5 1/2	10
PB1386		1 3/8	6	10
PN138		1 3/8		50
PW138		1 3/8	STD	NA
PW138HD		1 3/8	8.0MM THICK	10
PB1212	3J2801	1"	2 1/2	70
PB13	4F4042	1"	3	60
PB1312	4J9208	1"	3 1/2	50
PB1314	4J9058	1"	3 1/4	40
PB1334	8J2928	1"	3 3/4	50
PB14	5P80136	1"	4	30
PB1412	1J3527	1"	4 1/2	40
PB15		1"	5	20
PB1512		1"	5 1/2	NA
PN10	2J3507	1"		100
PW10	5P8250	1"		470
PW10HD		1"	5.0MM	100

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