HIGH TENSILE TRACK SHOE BOLTS

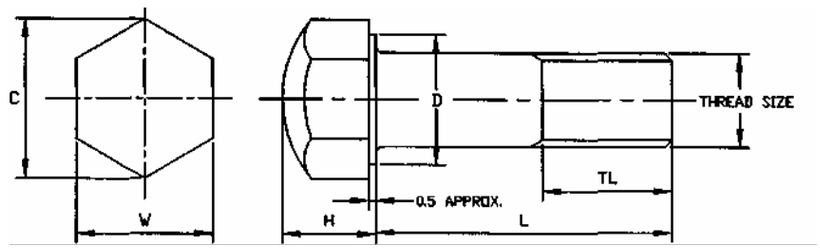

Table No.l A : Dimensions

BOLT SIZE	TRACK SHOE BOLTS						FOR USE ON
	W	C	H	D	TL	L	
M16x1.5	23.0	26.6	16.00	21.60	28.0	57.0	BEML-KOMATSU D50, D50A15 L&TPOCLAIN 10CK
M18x1.5	27.0	31.2	16.50	26.00	30.0	58.0	BEML-KOMATSU PC2203
M19x1.5	29.0	33.5	19.00	28.00	35.0	62.0	BEML-KOMATSU D80, D80 A12
M19x1.5	29.0	33.5	19.00	28.00	35.0	65.0	BEML-KOMATSU PC300, D80 A12
M20x1.5	30.0	34.6	19.00	29.00	32.0	63.0	BEML-KOMATSU PC3003
M24x1.5	36.0	41.6	22.00	35.00	36.0	78.5	BEML-KOMATSU D155 A1
M27x1.5	41.0	47.3	24.00	40.00	38.0	82.5	BEML-KOMATSU D355 A3, PC650
5/8"-18UNF	23.8	26.9	16.66	23.00	28.6	51.0	CATERPILLAR D4, D5
5/8"-18UNF	23.8	26.9	16.66	23.00	30.6	56.0	CATERPILLAR D4, D5
3/4"-16 UNF	28.6	32.3	19.05	27.56	27.0	60.3	CATERPILLAR D6, D7
3/4"-16 UNF	28.6	32.3	19.50	27.56	30.0	70.0	HM-TEREX / HM-DEMAG H36
7/8"-14 UNF	33.3	37.0	20.60	32.15	31.8	67.6	CATERPILLAR D8 L&T POCLAIN 300CK
7/8"-14 UNF	33.3	37.0	19.90	32.15	35.0	84.0	HM-TEREX / HM-DEMAG H51
1"-14 UNS	38.1	43.0	22.86	37.20	31.5	74.7	CATERPILLAR D9

HIGH TENSILE TRACK SHOE NUTS

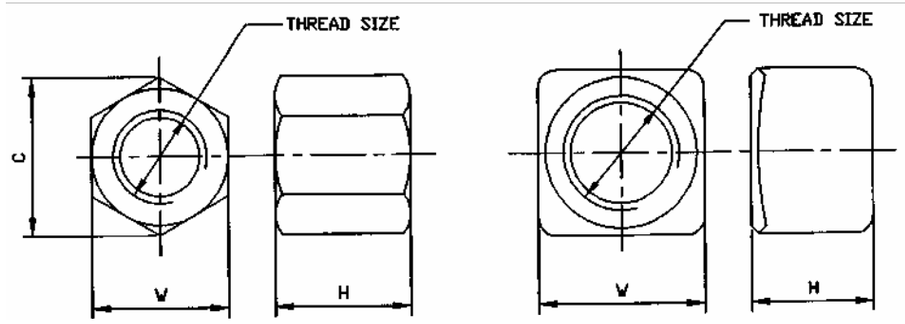

Table No.l B : Dimensions T, S. NUT - HEX T. S, NUT - SQUARE

NUT SIZE	T. S. NUTS - HEX			T. S. NUTS - HEX		FOR USE ON
	W	C	H	W	H	
M16x1.5	23.0	26.6	22.00	21.60	28.0	BEML-KOMATSU D50, D50A15 L&TPOCLAIN 10CK
M18x1.5	27.0	31.2	24.00			BEML-KOMATSU PC2203
M19x1.5	29.0	33.5	26.00			BEML-KOMATSU D80, D80 A12
M19x1.5	29.0	33.5	26.00			BEML-KOMATSU PC300, D80 A12
M20x1.5	30.0	34.6	26.00			BEML-KOMATSU PC3003
M24x1.5				35.00	24.0	BEML-KOMATSU D1 55 A1
M27x1.5				41.00	27.0	BEML-KOMATSU D355 A3, PC650
5/8"-18UNF				24.60	18.2	CATERPILLAR D4, D5
5/8"-18UNF				24.60	18.2	CATERPILLAR D4, D5
3/4"-16 UNF				28.30	19.1	CATERPILLAR D6, D7
3/4"-16 UNF				28.30	19.0	HM-TEREX / HM-DEMAG H36
7/8"-14 UNF				33.30	23.0	CATERPILLAR D8 L&T POCLAIN 300CK
7/8"-14 UNF				33.30	23.0	HM-TEREX / HM-DEMAG H51
1"-14UNS				38.10	25.4	CATERPILLAR D9

Table No. 2 : Technical Data

BOLT SIZE	HARDNESS	CROWN HARDNESS		TENSILE STRENGTH
	HRc	HRc	TO DEPTH mm	N/Sq.mm
M16X1.5X57.0	34-40	52-60	4-7	1040
M18X1.5X58.0	38-43	52-60	4-7	1220
M19X1.5X62.0	38-43	52-60	4-7	1220
M19X1.5X65.0	34-40	52-60	4-7	1040
M20X1.5X63.0	38-43	52-60	4-7	1220
M24X1.5X78.5	34-40	52-60	4-7	1040
M27X1.5X32.5	34-40	52-60	4-7	1040
5/8"-18UNFX2.008"	38-43	52-60	4-7	1220
5/8"-18UNFX56.0	37-42	52-60	4-7	1220
3/4"-16UNFX 2.3/8"	38-43	52-60	4-7	1220
3/4"-18UNFX70.0	38-43	52-60	4-7	1220
7/8"-14UNFX2.66"	38-43	52-60	4-7	1220
7/8"-14UNFX84.6	38-43	52-60	4-7	1220
1"-14UNSX2.94"	34-40	52-60	4-7	1040

Tightening Procedure :

To ensure that Track Shoe Bolts and Nuts are properly tightened, follow the procedure outlined below :

1. Remove paint from Track Link and Shoe mating surfaces.
2. Lubricate the Bolt threads and Bolt washerface.
3. Tighten the Bolts to specified Torque (refer Table no. 3 for initial torque values for each size)
4. Give each Bolt additional 'One Third Turn', i.e.additional '120 Degree' turn. Initial torque draws the parts together tightly. Additional 'One Third' or '120 Degree' turn gives the Bolt proper stretch for good retention. Stretching stresses the Bolt till permanent deformation take place, which ensure that the Bolt's maximum clamping force is used.
5. For Bolts marked thus '*', full tightening should be done with specified torque. Additional 'One Third' turn is not necessary and should not be given in such cases.
   In case of M18 Track Shoe Bolts, values for both the method of tightening are specified. Either method can be used for tightening.

Table No. 3 : Tightening Torque Recommendation

BOLT DIA.		INITIAL TIGHTENING TORQUE		FULL TIGHTENING TORQUE
Inch	mm	lb.-Ft.	Nm	Nm
	M16			340-420*
	M18		220-280	530-660*
	M19(x62)			600-740*
	M19(x65)		270-330	
	M20		360-440	
	M24			1000-1200*
	M27			1650-1950*
5/8"		120-150		
3/4"		220-260		
7/8"		250-300		
1"		400-450		