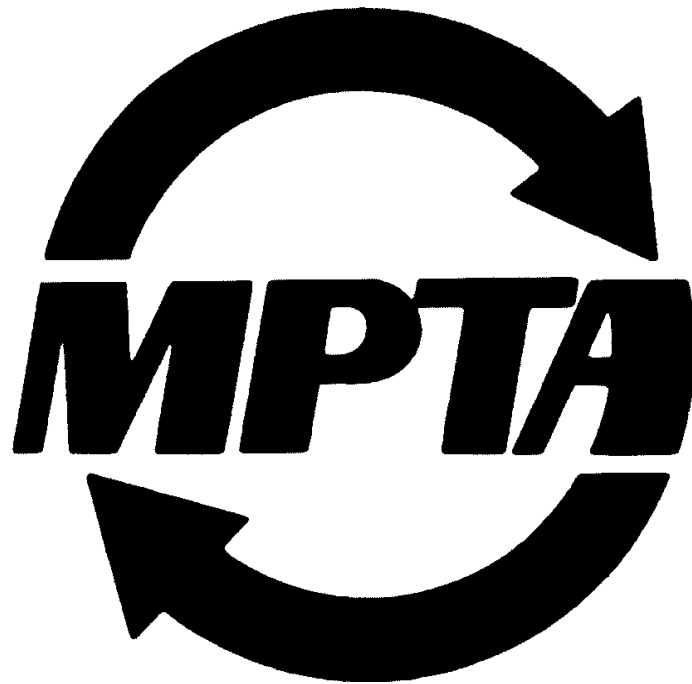


MPTA-B6i-2010

Quick Detachable Bushing & Mating Hub
Standard



MPTA Standard

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Abstract

This standard provides general dimensions and tolerances for inch quick detachable bushings and mating hubs.

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Foreword

This Foreword is provided for informational purposes only and is not to be construed to be part of any technical specification.

This standard is a revision of QD-1-1992. It has been re-formatted for consistency with other MPTA documents.

Suggestions for the improvement of, or comments on this publication are welcome. They should be mailed to Mechanical Power Transmission Association, 6724 Lone Oak Blvd., Naples, FL 34109 on your company letterhead.

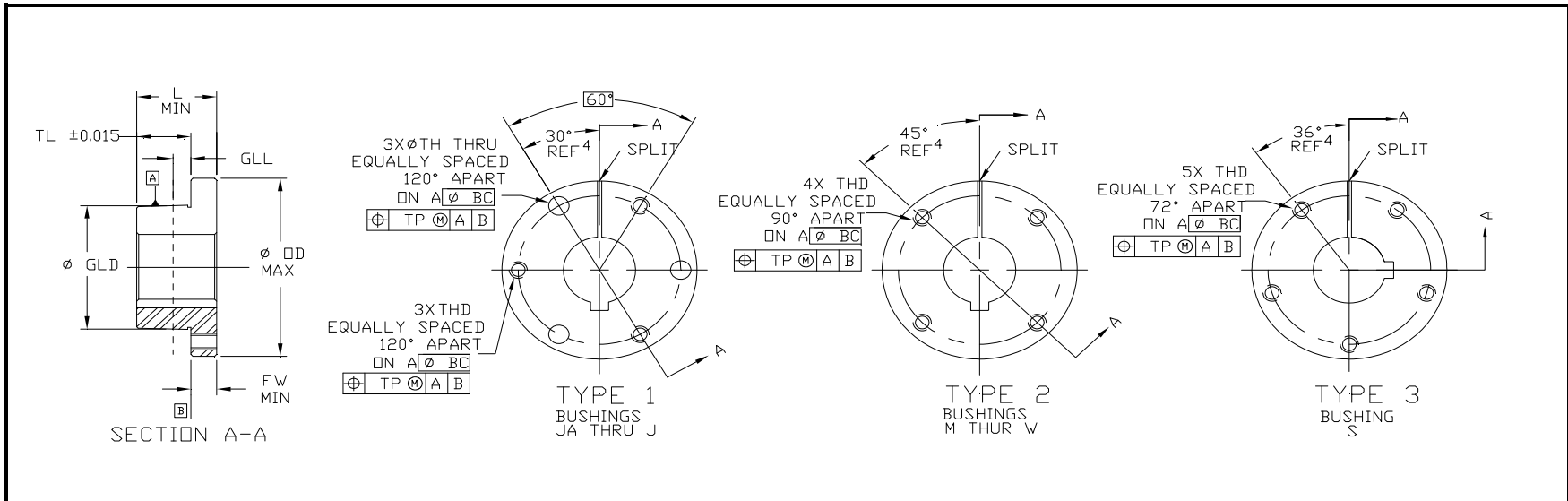
Scope

This guideline is intended to provide dimensions and tolerances, which will permit bushings made by one manufacturer to be used to mount sheaves or other products made by a different manufacturer.

The bushing system described in this guideline is limited to systems having the following characteristics:

- ... An external flange
- ... No external key
- ... A nominal $\frac{3}{4}$ inch/foot taper
- ... Split through both flange and taper
- ... Conventional and reverse mount capability.

Table 1 -Detachable Bushings

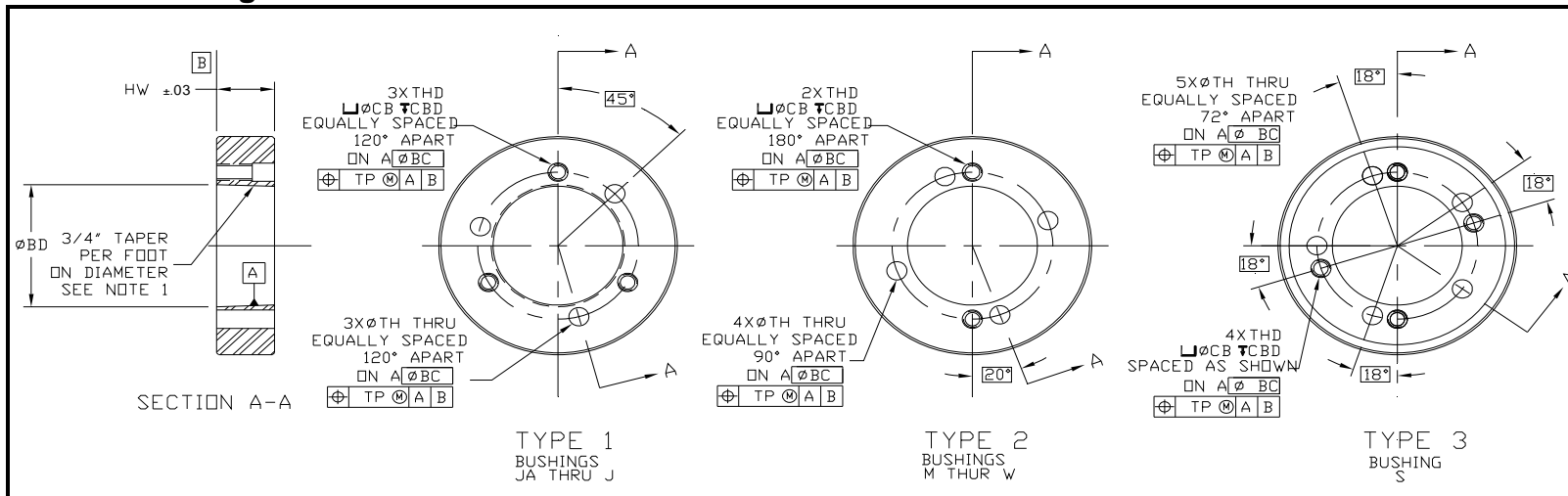


BUSHING	BUSHING TYPE	DIMENSIONS (IN)									
		GAGE LINE		FLANGE WIDTH FW	OUTSIDE DIAMETER OD	TAPER LENGTH TL	BUSHING LENGTH L	THREADED HOLE THREAD SIZE THD	THRU HOLE MIN DIAMETER TH	THREADED AND THRU HOLE	
		DIAMETER GLD	LOCATION GLL							BOLT CIRCLE DIAMETER BC	TRUE POSITION TP
JA	1	1.3750	.1860 / .2340	0.30	2.02	0.56	0.80	#10-24 UNC-2B	0.2189	1.6560	0.007
SH	1	1.8710	.2120 / .2740	0.36	2.70	0.81	1.17	1/4-20 UNC-2B	0.2813	2.2500	0.007
SDS	1	2.1875	.2320 / .2980	0.42	3.20	0.88	1.30	1/4-20 UNC-2B	0.3125	2.6875	0.007
SD	1	2.1875	.2220 / .2980	0.42	3.20	1.38	1.80	1/4-20 UNC-2B	0.3125	2.6875	0.007
SK	1	2.8125	.2580 / .3765	0.48	3.89	1.25	1.67	5/16-18 UNC-2B	0.3438	3.3125	0.007
SF	1	3.1250	.2680 / .3765	0.48	4.64	1.44	1.98	3/8-16 UNC-2B	0.4375	3.8750	0.015
E	1	3.8340	.2780 / .3765	0.73	6.02	1.88	2.61	1/2-13 UNC-2B	0.5625	5.0000	0.015
F	1	4.4375	.3750 / .4710	0.80	6.64	2.75	3.61	9/16-12 UNC-2B	0.6250	5.6250	0.015
J	1	5.1484	.3750 / .4710	0.98	7.27	3.50	4.48	5/8-11 UNC-2B	0.6875	6.2500	0.015
M	2	6.5000	.3750 / .4710	1.23	9.14	5.50	6.73	3/4-10 UNC-2B	.8125 (3)	7.8750	0.015
N	2	7.0000	.3750 / .4710	1.48	10.02	6.63	8.11	7/8-9 UNC-2B	.9375 (3)	8.5000	0.015
P	2	8.2500	.3750 / .4710	1.73	11.77	7.63	9.36	1-8 UNC-2B	1.0625 (3)	10.0000	0.030
W	2	10.4375	.5000 / .6280	1.98	15.02	9.38	11.36	1 1/8-7 UNC-2B	1.0938 (3)	12.7500	0.030
S	3	12.1250	.7500 / .8780	3.23	17.77	12.50	15.73	1 1/4-7 UNC-2B	1.3125 (3)	15.0000	0.030

NOTES

- 1) Taper angle 1°47' 24" ± 2' (per side) or 80% contact with on-size ring gage
- 2) All dimensions are prior to splitting
- 3) Only required for reverse mount
- 4) Angle may vary per manufacture's individual standards

Table 2 - Mating Hubs

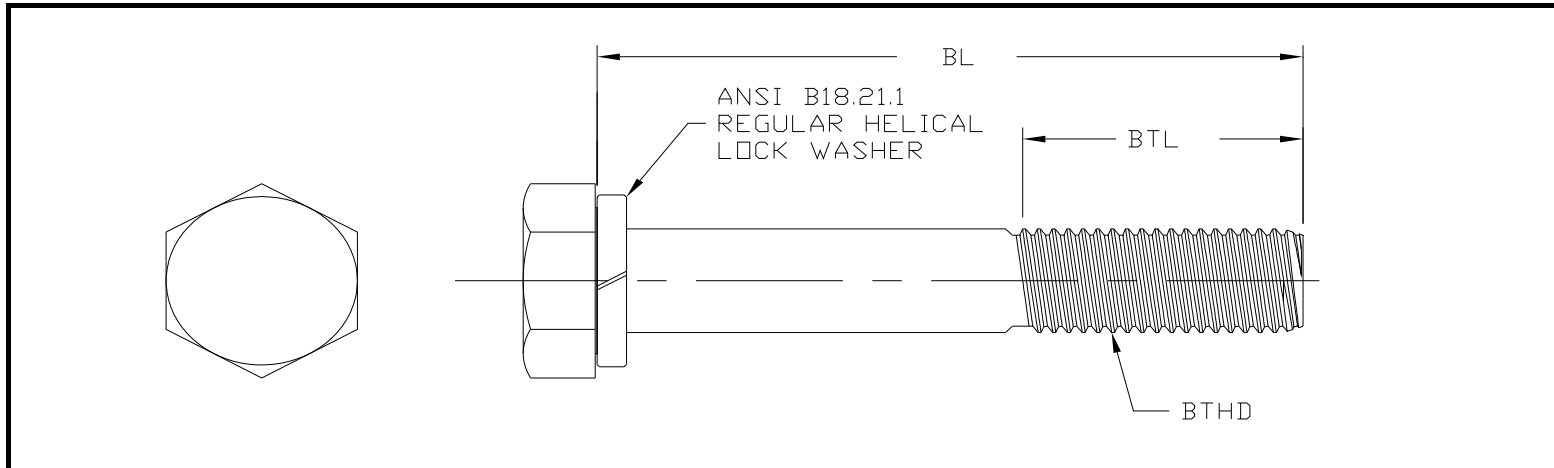


BUSHING	HUB TYPE	DIMENSIONS (IN)									
		LARGE END BORE DIAMETER BD		HUB WIDTH HW	THREADED BOLT HOLE				THRU HOLE MIN DIAMETER TH	THREADED AND THRU HOLE BOLT CIRCLE	
		Min	Max		THREAD SIZE THD	COUNTER BORE DIAMETER MIN. D	COUNTER BORE DEPTH CBD	COUNTER BORE DEPTH TOLERANCE CD		DIAMETER BC	TRUE POSITION TP
JA	1	1.3730	1.3750	0.56	#10-24 UNC-2B	NONE	NONE	NONE	0.2190	1.6560	0.007
SH	1	1.8680	1.8710	0.81	1/4-20 UNC-2B	0.2813	0.31	±.06	0.2813	2.2500	0.007
SDS	1	2.1835	2.1875	0.75	1/4-20 UNC-2B	0.3125	0.25	±.06	0.3125	2.6875	0.007
SD	1	2.1835	2.1875	1.25	1/4-20 UNC-2B	0.3125	0.75	±.06	0.3125	2.6875	0.007
SK	1	2.8085	2.8125	1.25	5/16-18 UNC-2B	0.3438	0.62	±.06	0.3438	3.3125	0.007
SF	1	3.1210	3.1250	1.25	3/8-16 UNC-2B	0.4375	0.56	±.06	0.4375	3.8750	0.015
E	1	3.8300	3.8340	1.63	1/2-13 UNC-2B	0.5625	0.75	±.06	0.5625	5.0000	0.015
F	1	4.4355	4.4395	2.50	9/16-12 UNC-2B	0.6250	1.50	±.12	0.6250	5.6250	0.015
J	1	5.1410	5.1450	3.19	5/8-11 UNC-2B	0.6875	2.06	±.12	0.6875	6.2500	0.015
M	2	6.4920	6.4960	5.19	3/4-10 UNC-2B	0.8125	3.94	±.12	0.8125	7.8750	0.015
N	2	6.9900	6.9940	6.25	7/8-9 UNC-2B	0.9375	4.81	±.12	0.9375	8.5000	0.015
P	2	8.2400	8.2440	7.25	1-8 UNC-2B	1.1250	5.56	±.12	1.1250	10.0000	0.030
W	2	10.4270	10.4310	9.00	1 1/8-7 UNC-2B	1.2500	7.19	±.12	1.2500	12.7500	0.030
S	3	12.1230	12.1270	12.00	1 1/4-7 UNC-2B	1.3750	9.25	±.12	1.3750	15.0000	0.030

NOTES

- 1) Taper angle 1°47' 24" ± 2' (per side) and 80% contact with on-size plug gage
- 2) Bores measured with taper plug gage only.

Table 3 - FASTENERS



DIMENSIONS (IN)						
HEX HEAD CAP SCREW						
BUSHING	NUMBER OF SCREWS REQUIRED	THREAD SIZE BTHD	STANDARD MOUNT BOLT LENGTH BL	STANDARD MOUNT MIN THREAD LENGTH REQUIRED WITH WASHER BTL	REVERSE MOUNT BOLT LENGTH BL	REVERSE MOUNT MIN THREAD LENGTH REQUIRED WITH WASHER BTL
JA	3	#10-24 UNC-2A	1.00	1.00	1.00	1.00
SH	3	1/4-20 UNC-2A	1.38	1.13	1.13	1.13
SDS	3	1/4-20 UNC-2A	1.38	1.13	1.13	1.13
SD	3	1/4-20 UNC-2A	1.88	1.38	1.38	1.38
SK	3	5/16-18 UNC-2A	2.00	1.50	1.50	1.50
SF	3	3/8-16 UNC-2A	2.00	1.50	1.50	1.50
E	3	1/2-13 UNC-2A	2.75	1.88	1.88	1.88
F	3	9/16-12 UNC-2A	3.63	2.75	2.75	2.75
J	3	5/8-11 UNC-2A	4.50	3.38	3.38	3.38
M	4	3/4-10 UNC-2A	6.75	2.00	3.00	2.00
N	4	7/8-9 UNC-2A	8.00	2.25	3.50	2.25
P	4	1-8 UNC-2A	9.50	2.50	4.00	2.50
W	4	1 1/8-7 UNC-2A	11.50	2.75	4.50	2.75
S	5	1 1/4-7 UNC-2A	15.50	4.50	7.00	4.50

TABLE 4 - Mounting arrangement

