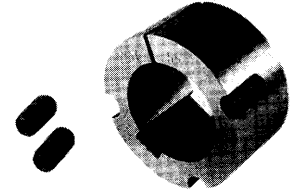


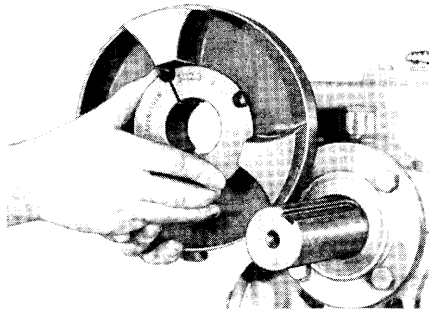
# TAPPER BUSHES

## ADVANTAGES

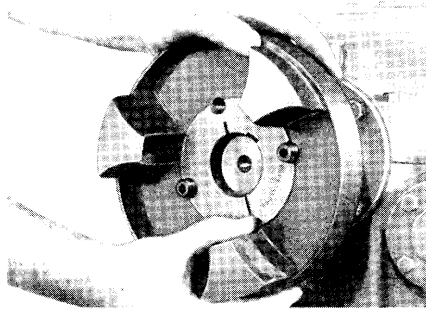
- No reboring and keywaying cost
- Save time and cost in fitting keys
- Eliminates precision taper fitting keys
- Over 500 bush size/bore combinations are available with both metric and imperial bores
- Interchangeable between many products
- Taper bored components can be transferred to other diameter shafts fitting alternative bore bushes
- Conveniences in dismantling for maintenance and component replacement
- Accommodates shaft limits of  $+0.050\text{mm}, -0.125\text{mm}$



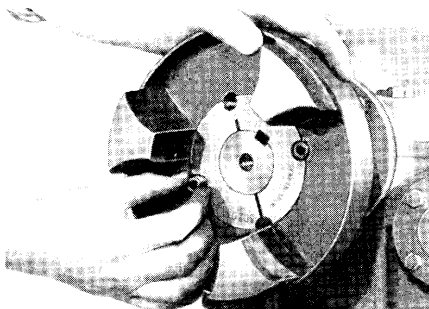
## INSTALLATION INSTRUCTIONS



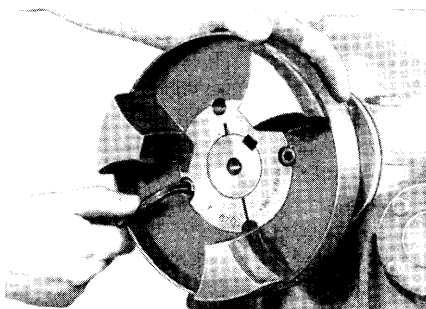
INSERT BUSH



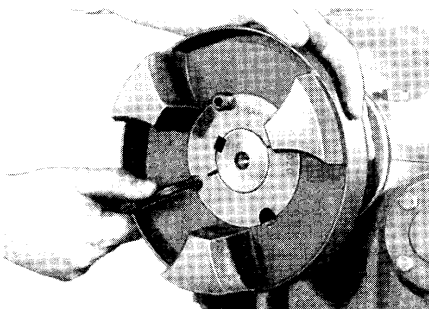
INSERT SCREWS and LOCATE ON SHAFT



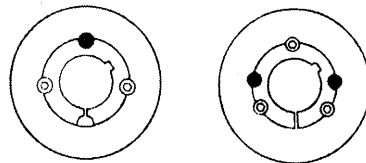
TIGHTEN SCREWS FINGER TIGHT



TIGHTEN SCREWS ALTERNAELY



REMOVING A TAPER LOCK<sup>®</sup> BUSH



## TO INSTALL

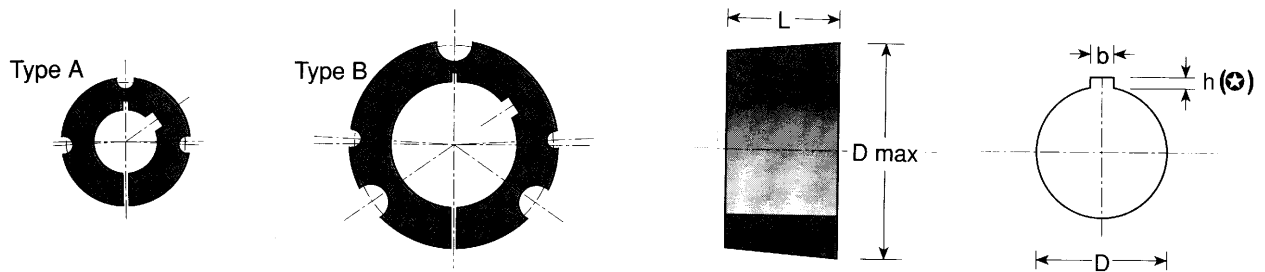
1. Remove the protective coating from the bore and outside of bush, and bore of hub. After ensuring that the mating tapered surfaces are completely clean and free from oil or dirt, insert bush in hub so that holes line up.
2. Sparingly oil thread and point of grub screws, or thread and under head of cap screws. Place screws loosely in holes threaded in hub, shown thus in diagram.
3. Clean shaft and fit hub to shaft as one unit and locate in position desired, remembering that bush will nip the shaft first and then hub will be slightly drawn on to the bush.
4. Using a hexagon wrench tighten crews gradually and alternately to torque shown in table below.
5. Hammer against large-end of bush, using a block or sleeve to prevent damage. (This will ensure that the bush is seated squarely in the bore.) Screws will now turn a little more. Repeat this alternate hammering and screw tightening once or twice to achieve maximum gup on the shaft.
6. If a key is to be fitted place it in the shaft keyway before fitting the bush. It is essential that it is a parallel key and side fitting only and has TOP CLEARANCE.
7. After drive has been running under load for a short time stop and check tightness of screws.
8. Fill empty holes with grease to exclude dirt.

## TO REMOVE

1. Slacken all screws by several turns, remove one or two according to number of jacking off holes shown thus ● in diagram. Insert crews in Jacking off holes after oiling thread and point of grub screws or thread and under head of cap screws.
2. Tighten crews alternately until bush is loosened in hub and assemble is free on the shaft.
3. Remove assembly from shaft.

# TAPPER BUSHES / METRIC

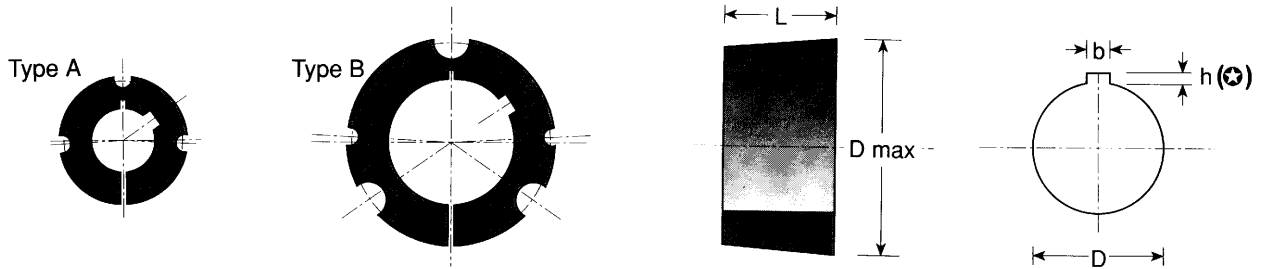
Figur type		1008	1108	1210	1215	1310	1610	1615	2012	2517	2525	3020	3030	3525	3535	4040	4545	5050
		A	A	A	A	A	A	A	A	A	A	A	A	B	B	B	B	B
Weight	(kg)	0,12	0,16	0,28	0,39	0,32	0,42	0,61	0,75	1,10	2,25	2,61	3,80	3,90	5,25	7,80	12,80	15,30
D max	(mm)	35,0	38,0	47,5	47,5	50,5	57,0	57,0	70,0	85,5	85,5	108,0	108,0	127,0	127,0	146,0	162	177,5
L	(mm)	22,3	22,3	25,4	38,1	25,4	25,4	38,1	31,8	44,5	63,5	50,8	76,2	63,5	88,9	101,6	114,3	127,0
Socket	(inch)	1/4x	1/4x	3/8x	3/8x	3/8x	3/8x	3/8x	7/16x	1/2x	1/2x	5/8x	5/8x	1/2x	1/2x	5/8x	3/4x	7/8x
Screw		1/2	1/2	5/8	5/8	5/8	5/8	5/8	7/8	1	1	1 1/4	1 1/4	1 1/2	1 1/2	1 3/4	2	2 1/4
Wrench	(No.)	3	3	5	5	5	5	5	6	6	6	8	8	10	10	12	14	14
Moment	(Nm)	5,7	5,7	20	20	20	20	20	31	49	49	92	92	115	115	172	195	275



$\phi$ D	b	h (☆)	1008	1108	1210	1215	1310	1610	1615	2012	2517	2525	3020	3030	3525	3535	4040	4545	5050
mm	mm	mm																	
9	3	1,4	●	●															
10	3	1,4	●	●															
11	4	1,8	●	●	●	●													
12	4	1,8	●	●	●	●	●	●	●										
14	5	2,3	●	●	●	●	●	●	●	●									
15	5	2,3	●	●	●	●	●	●	●	●									
16	5	2,3	●	●	●	●	●	●	●	●									
18	6	2,8	●	●	●	●	●	●	●	●									
19	6	2,8	●	●	●	●	●	●	●	●	●	●							
20	6	2,8	●	●	●	●	●	●	●	●	●	●							
22	6	2,8	●	●	●	●	●	●	●	●	●	●							
24	8	3,3(1,3)	☆	●	●	●	●	●	●	●	●	●							
25	8	3,3(1,3)	☆	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
28	8	3,3(1,3)		☆	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
30	8	3,3			●	●	●	●	●	●	●	●	●	●	●	●	●	●	
32	10	3,3			●	●	●	●	●	●	●	●	●	●	●	●	●	●	
35	10	3,3(1,3)					☆	●	●	●	●	●	●	●	●	●	●	●	
38	10	3,3						●	●	●	●	●	●	●	●	●	●	●	
40	12	3,3						●	●	●	●	●	●	●	●	●	●	●	
42	12	3,3(1,3)						●	☆	●	●	●	●	●	●	●	●	●	
45	14	3,8								●	●	●	●	●	●	●	●	●	
48	14	3,8								●	●	●	●	●	●	●	●	●	
50	14	3,8								●	●	●	●	●	●	●	●	●	
55	16	4,3									●	●	●	●	●	●	●	●	
60	18	4,4									●	●	●	●	●	●	●	●	
65	18	4,4(2,3)									●	☆	●	●	●	●	●	●	
70	20	4,9											●	●	●	●	●	●	●
75	20	4,9											●	●	●	●	●	●	●
80	22	5,4												●	●	●	●	●	●
85	22	5,4												●	●	●	●	●	●
90	25	5,4													●	●	●	●	●
95	25	5,4													●	●	●	●	●
100	28	6,4														●	●	●	●
105	28	6,4															●	●	●
110	28	6,4																●	●
115	32	7,4																	●
120	32	7,4																	●
125	32	7,4																	●

# TAPPER BUSHES / IMPERIAL

Figur type		1008	1108	1210	1215	1310	1610	1615	2012	2517	2525	3020	3030	3525	3535	4040	4545	5050
Weight	(kg)	0,12	0,16	0,28	0,39	0,32	0,42	0,61	0,75	1,10	2,25	2,61	3,80	3,90	5,25	7,80	12,80	15,30
D max	(mm)	35,0	38,0	47,5	47,5	50,5	57,0	57,0	70,0	85,5	85,5	108,0	108,0	127,0	127,0	146,0	162	177,5
L	(mm)	22,3	22,3	25,4	38,1	25,4	25,4	38,1	31,8	44,5	63,5	50,8	76,2	63,5	88,9	101,6	114,3	127,0
Socket	(inch)	1/4x	1/4x	3/8x	3/8x	3/8x	3/8x	3/8x	7/16x	1/2x	1/2x	5/8x	5/8x	1/2x	1/2x	5/8x	3/4x	7/8x
Screw		1/2	1/2	5/8	5/8	5/8	5/8	5/8	7/8	1	1	1 1/4	1 1/4	1 1/2	1 1/2	1 3/4	2	2 1/4
Wrench	(No.)	3	3	5	5	5	5	5	6	6	6	8	8	10	10	12	14	14
Moment	(Nm)	5,7	5,7	20	20	20	20	20	31	49	49	92	92	115	115	172	195	275



$\phi$ D	b	h (☆)	1008	1108	1210	1215	1310	1610	1615	2012	2517	2525	3020	3030	3525	3535	4040	4545	5050
inch	inch	inch																	
3/8	1/8	1/16	●	●															
7/16	1/8	1/16	●	●															
1/2	1/8	1/16	●	●	●	●	●	●	●										
9/16	3/16	3/32	●	●	●	●	●	●	●										
5/8	3/16	3/32	●	●	●	●	●	●	●										
11/16	3/16	3/32	●	●	●	●	●	●	●										
3/4	3/16	3/32	●	●	●	●	●	●	●	●	●								
13/16	1/4	1/8	●	●	●	●	●	●	●	●	●	●							
7/8	1/4	1/8	●	●	●	●	●	●	●	●	●	●	●						
15/16	1/4	1/8(1/16)	☆	●	●	●	●	●	●	●	●	●							
1	1/4	1/8(1/16)	☆	●	●	●	●	●	●	●	●	●							
1 1/16	5/16	1/8(5/64)		☆	●	●	●	●	●	●	●	●							
1 1/8	5/16	1/8(5/64)		☆	●	●	●	●	●	●	●	●							
1 3/16	5/16	1/8			●	●	●	●	●	●	●	●							
1 1/4	5/16	1/8			●	●	●	●	●	●	●	●	●	●					
1 5/16	3/8	1/8					●	●	●	●	●	●	●	●					
1 3/8	3/8	1/8						●	●	●	●	●	●	●					
1 7/16	3/8	1/8						●	●	●	●	●	●	●					
1 1/2	3/8	1/8						●	●	●	●	●	●	●	●	●			
1 5/8	7/16	5/32(1/8)						●	☆	●	●	●	●	●	●	●			
1 3/4	7/16	5/32							●	●	●	●	●	●	●	●	●		
1 7/8	1/2	5/32							●	●	●	●	●	●	●	●	●	●	
2	1/2	5/32							●	●	●	●	●	●	●	●	●	●	
2 1/8	5/8	7/32								●	●	●	●	●	●	●	●	●	
2 1/4	5/8	7/32									●	●	●	●	●	●	●	●	●
2 3/8	5/8	7/32									●	●	●	●	●	●	●	●	●
2 1/2	5/8	7/32									●	●	●	●	●	●	●	●	●
2 5/8	3/4	1/4										●	●	●	●	●	●	●	●
2 3/4	3/4	1/4										●	●	●	●	●	●	●	●
2 7/8	3/4	1/4										●	●	●	●	●	●	●	●
3	3/4	1/4										●	●	●	●	●	●	●	●
3 1/8	7/8	5/16											●	●	●	●	●	●	●
3 1/4	7/8	5/16												●	●	●	●	●	●
3 3/8	7/8	5/16													●	●	●	●	●
3 1/2	7/8	5/16(1/4)													☆	●	●	●	●
3 3/4	1	3/8(1/4)													☆	●	●	●	●
4	1	3/8(1/4)														☆	●	●	●
4 1/4	1 1/4	7/16(1/4)															☆	●	●
4 1/2	1 1/4	7/16(1/4)																☆	●
4 3/4	1 1/4	7/16																	●
5	1 1/4	7/16(5/16)																	☆