Taper Bushes

To Install

1 Ensure the mating surfaces are clean and free from oil and dirt. Insert the bush into the hub so that the securing holes are aligned

2 Lightly oil the thread of the screws and place the them loosely into the threaded holes of the hub as shown in the diagram

3 Clean the shaft and fit the hub and bush to the shaft as one unit in the desired position. Remember that the bush will nip the shaft first and the hub will then be drawn slightly on to the bush

4 Using a hexagon wrench, gradually tighten the screws alternately until tight

5 Hammer against the large end of the bush using a block to avoid damaging the bush. The screws can now be tightened more. Repeat this procedure until the correct wrench tightening torque is achieved from the table below

6 To achieve the best balance, if a key is not used, position the keyways in the bush and hub diametrically opposite to each other

7 If a key is to be fitted, locate it in the shaft keyway before fitting the bush. It is essential that a parallel key with top clearance be fitted. Under no circumstances should taper or top fitting keys be used

8 After the drive has been running for a short time, check the tightness of the screws

9 Finally, fill all empty holes with grease to exclude dirt and prevent corrosion

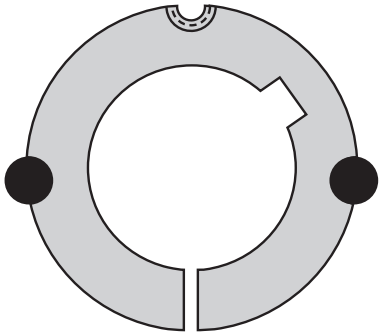
To Remove

1 Slacken all screws and remove one or two screws, according to the number of removal holes (see diagrams)

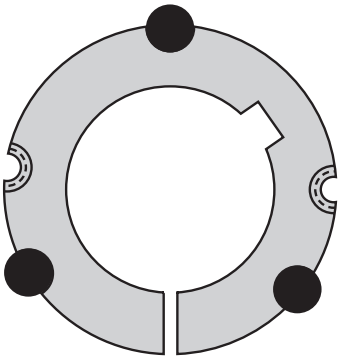
2 Lightly oil the screw(s) and insert it or them into the removal hole(s) and tighten down until the assembly loosens. If the bush does not loosen immediately, lightly tap the hub

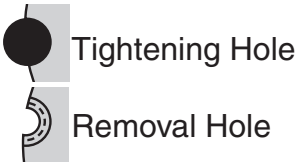
3 Remove the assembly from the shaft

1008 to 3030



3525 to 5050





Recommended Wrench Torque

Bush Size	Screws	Tightening Torque (Nm)	Bush Size	Screws	Tightening Torque (Nm)	Bush Size	Screws	Tightening Torque (Nm)
1008	1/4” Set Screws	6	2012	7/16” Set Screws	30	4030	5/8” Cap Screws	170
1108	1/4” Set Screws	6	2517	1/2” Set Screws	50	4040	5/8” Cap Screws	170
1210	3/8” Set Screws	20	2525	1/2” Set Screws	50	4535	3/4” Cap Screws	190
1215	3/8” Set Screws	20	3020	5/8” Set Screws	90	4545	3/4” Cap Screws	190
1310	3/8” Set Screws	20	3030	5/8” Set Screws	90	5040	7/8” Cap Screws	270
1610	3/8” Set Screws	20	3525	1/2” Cap Screws	105	5050	7/8” Cap Screws	270
1615	3/8” Set Screws	20	3535	1/2” Cap Screws	105			

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Taper Bushes - Metric

1008

Bore	Weight kg †	Keyseat Bush	Keyseat Shaft
9	0.13	3 x 1.4	3 x 1.8
10	0.13	3 x 1.4	3 x 1.8
11	0.12	4 x 1.8	4 x 2.5
12	0.12	4 x 1.8	4 x 2.5
14	0.11	5 x 2.3	5 x 3.0
15	0.11	5 x 2.3	5 x 3.0
16	0.10	5 x 2.3	5 x 3.0
18	0.10	6 x 2.8	6 x 3.5
19	0.09	6 x 2.8	6 x 3.5
20	0.09	6 x 2.8	6 x 3.5
22	0.08	6 x 2.8	6 x 3.5
24*	0.07	8 x 1.3*	8 x 4.0
25*	0.06	8 x 1.3*	8 x 4.0

1108

Bore	Weight kg †	Keyseat Bush	Keyseat Shaft
9	0.15	3 x 1.4	3 x 1.8
10	0.15	3 x 1.4	3 x 1.8
11	0.15	4 x 1.8	4 x 2.5
12	0.14	4 x 1.8	4 x 2.5
14	0.14	5 x 2.3	5 x 3.0
15	0.13	5 x 2.3	5 x 3.0
16	0.13	5 x 2.3	5 x 3.0
17	0.12	5 x 2.3	5 x 3.0
18	0.12	6 x 2.8	6 x 3.5
19	0.11	6 x 2.8	6 x 3.5
20	0.11	6 x 2.8	6 x 3.5
22	0.10	6 x 2.8	6 x 3.5
24	0.09	8 x 3.3	8 x 4.0
25	0.08	8 x 3.3	8 x 4.0
28*	0.06	8 x 1.3*	8 x 4.0

1210

Bore	Weight kg †	Keyseat Bush	Keyseat Shaft
11	0.26	4 x 1.8	4 x 2.5
12	0.26	4 x 1.8	4 x 2.5
14	0.25	5 x 2.3	5 x 3.0
15	0.25	5 x 2.3	5 x 3.0
16	0.24	5 x 2.3	5 x 3.0
18	0.23	6 x 2.8	6 x 3.5
19	0.23	6 x 2.8	6 x 3.5
20	0.22	6 x 2.8	6 x 3.5
22	0.21	6 x 2.8	6 x 3.5
24	0.19	8 x 3.3	8 x 4.0
25	0.19	8 x 3.3	8 x 4.0
28	0.16	8 x 3.3	8 x 4.0
30	0.15	8 x 3.3	8 x 4.0
32	0.14	10 x 3.3	10 x 5.0

1215

Bore	Weight kg †	Keyseat Bush	Keyseat Shaft
11	0.39	4 x 1.8	4 x 2.5
12	0.39	4 x 1.8	4 x 2.5
14	0.37	5 x 2.3	5 x 3.0
16	0.36	5 x 2.3	5 x 3.0
18	0.34	6 x 2.8	6 x 3.5
19	0.34	6 x 2.8	6 x 3.5
20	0.33	6 x 2.8	6 x 3.5
22	0.31	6 x 2.8	6 x 3.5
24	0.29	8 x 3.3	8 x 4.0
25	0.28	8 x 3.3	8 x 4.0
28	0.24	8 x 3.3	8 x 4.0
30	0.22	8 x 3.3	8 x 4.0
32	0.20	10 x 3.3	10 x 5.0

1310

Bore	Weight kg †	Keyseat Bush	Keyseat Shaft
14	0.31	5 x 2.3	5 x 3.0
16	0.30	5 x 2.3	5 x 3.0
18	0.29	6 x 2.8	6 x 3.5
19	0.28	6 x 2.8	6 x 3.5
20	0.28	6 x 2.8	6 x 3.5
22	0.26	5 x 2.8	6 x 3.5
24	0.25	8 x 3.3	8 x 4.0
25	0.25	8 x 3.3	8 x 4.0
28	0.22	8 x 3.3	8 x 4.0
30	0.20	8 x 3.3	8 x 4.0
32	0.18	10 x 3.3	10 x 5.0
35	0.16	10 x 3.3	10 x 5.0

1610

Bore	Weight kg †	Keyseat Bush	Keyseat Shaft
14	0.38	5 x 2.3	5 x 3.0
15	0.37	5 x 2.3	5 x 3.0
16	0.37	5 x 2.3	5 x 3.0
18	0.36	6 x 2.8	6 x 3.5
19	0.35	6 x 2.8	6 x 3.5
20	0.35	6 x 2.8	6 x 3.5
22	0.33	6 x 2.8	6 x 3.5
24	0.32	8 x 3.3	8 x 4.0
25	0.31	8 x 3.3	8 x 4.0
28	0.29	8 x 3.3	8 x 4.0
30	0.27	8 x 3.3	8 x 4.0
32	0.26	10 x 3.3	10 x 5.0
35	0.22	10 x 3.3	10 x 5.0
38	0.19	10 x 3.3	10 x 5.0
40	0.18	12 x 3.3	12 x 5.0
42	0.16	12 x 3.3	12 x 5.0

† Net weight including screws.

Keyways are in accordance with BS4235, Part 1, 1972, DIN6885 and conform to ISO recommendations with the exception of those marked* which are shallower.

Depth of key measured at centre.

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Taper Bushes - Metric

1615

Bore	Weight kg †	Keyseat Bush	Keyseat Shaft
14	0.57	5 x 2.3	5 x 3.0
16	0.56	5 x 2.3	5 x 3.0
18	0.54	6 x 2.8	6 x 3.5
19	0.54	6 x 2.8	6 x 3.5
20	0.53	6 x 2.8	6 x 3.5
22	0.51	6 x 2.8	6 x 3.5
24	0.49	8 x 3.3	6 x 4.0
25	0.48	8 x 3.3	8 x 4.0
28	0.44	8 x 3.3	8 x 4.0
30	0.42	8 x 3.3	8 x 4.0
32	0.39	10 x 3.3	10 x 5.0
35	0.34	10 x 3.3	10 x 5.0
38	0.30	10 x 3.3	10 x 5.0
40	0.28	12 x 3.3	12 x 5.0
42*	0.24	12 x 2.2*	12 x 5.0

2517

Bore	Weight kg †	Keyseat Bush	Keyseat Shaft
16	1.67	5 x 2.3	5 x 3.0
18	1.65	6 x 2.8	6 x 3.5
19	1.64	6 x 2.8	6 x 3.5
20	1.63	6 x 2.8	6 x 3.5
22	1.61	6 x 2.8	6 x 3.5
24	1.59	8 x 3.3	8 x 4.0
25	1.57	8 x 3.3	8 x 4.0
28	1.53	8 x 3.3	8 x 4.0
30	1.50	8 x 3.3	8 x 4.0
32	1.47	10 x 3.3	10 x 5.0
35	1.42	10 x 3.3	10 x 5.0
38	1.36	10 x 3.3	10 x 5.0
40	1.32	12 x 3.3	12 x 5.0
42	1.28	12 x 3.3	12 x 5.0
45	1.21	14 x 3.8	14 x 5.5
48	1.14	14 x 3.8	14 x 5.5
50	1.09	14 x 3.8	14 x 5.5
55	0.96	16 x 4.3	16 x 6.0
60	0.81	18 x 4.4	18 x 7.0
65	0.65	18 x 4.4	18 x 7.0

3020

Bore	Weight kg †	Keyseat Bush	Keyseat Shaft
20	2.93	8 x 3.3	8 x 4.0
25	2.87	8 x 3.3	8 x 4.0
28	2.82	8 x 3.3	8 x 4.0
30	2.79	8 x 3.3	8 x 4.0
32	2.75	10 x 3.3	10 x 5.0
35	2.69	10 x 3.3	10 x 5.0
38	2.63	10 x 3.3	10 x 5.0
40	2.58	12 x 3.3	12 x 5.0
42	2.53	12 x 3.3	12 x 5.0
45	2.46	14 x 3.8	14 x 5.5
48	2.37	14 x 3.8	14 x 5.5
50	2.32	14 x 3.8	14 x 5.5
55	2.16	16 x 4.3	16 x 6.0
60	1.99	18 x 4.4	18 x 7.0
65	1.81	18 x 4.4	18 x 7.0
70	1.61	20 x 4.9	20 x 7.5
75	1.39	20 x 4.9	20 x 7.5

2012

Bore	Weight kg †	Keyseat Bush	Keyseat Shaft
14	0.76	5 x 2.3	5 x 3.0
16	0.75	5 x 2.3	5 x 3.0
18	0.74	6 x 2.8	6 x 3.5
19	0.73	6 x 2.8	6 x 3.5
20	0.73	6 x 2.8	6 x 3.5
22	0.71	6 x 2.8	6 x 3.5
24	0.69	8 x 3.3	8 x 4.0
25	0.69	8 x 3.3	8 x 4.0
28	0.66	8 x 3.3	8 x 4.0
30	0.63	8 x 3.3	8 x 4.0
32	0.61	10 x 3.3	10 x 5.0
35	0.57	10 x 3.3	10 x 5.0
38	0.53	10 x 3.3	10 x 5.0
40	0.51	12 x 3.3	12 x 5.0
42	0.48	12 x 3.3	12 x 5.0
45	0.43	14 x 3.8	14 x 5.5
48	0.38	14 x 3.8	14 x 5.5
50	0.34	14 x 3.8	14 x 5.5

2525

Bore	Weight kg †	Keyseat Bush	Keyseat Shaft
18	2.18	6 x 2.8	6 x 3.5
19	2.17	6 x 2.8	6 x 3.5
20	2.16	6 x 2.8	6 x 3.5
22	2.13	6 x 2.8	6 x 3.5
24	2.09	8 x 3.3	8 x 4.0
25	2.07	8 x 3.3	8 x 4.0
28	2.02	8 x 3.3	8 x 4.0
30	1.97	8 x 3.3	8 x 4.0
32	1.93	10 x 3.3	10 x 5.0
35	1.85	10 x 3.3	10 x 5.0
38	1.77	10 x 3.3	10 x 5.0
40	1.71	12 x 3.3	12 x 5.0
42	1.65	12 x 3.3	12 x 5.0
45	1.56	14 x 3.8	14 x 5.5
48	1.46	14 x 3.8	14 x 5.5
50	1.38	14 x 3.8	14 x 5.5
55	1.19	16 x 4.3	16 x 6.0
60	0.98	18 x 4.4	18 x 7.0

3030

Bore	Weight kg †	Keyseat Bush	Keyseat Shaft
25	4.04	8 x 3.3	8 x 4.0
35	3.77	10 x 3.3	10 x 5.0
38	3.67	10 x 3.3	10 x 5.0
40	3.60	12 x 3.3	12 x 5.0
42	3.53	12 x 3.3	12 x 5.0
45	3.42	14 x 3.8	14 x 5.5
48	3.29	14 x 3.8	14 x 5.5
50	3.21	14 x 3.8	14 x 5.5
55	2.98	16 x 4.3	16 x 6.0
60	2.72	18 x 4.4	18 x 7.0
65	2.44	18 x 4.4	18 x 7.0
70	2.15	20 x 4.9	20 x 7.5
75	1.83	20 x 4.9	20 x 7.5

† Net weight including screws.

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Depth of key measured at centre.

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