

	SURFACE VEHICLE STANDARD	SAE	J755 DEC2009
		Issued 1929-02 Revised 2009-12	
		Superseding J755 JUN1980	
(R) Marine Propeller-Shaft Ends and Hubs			

RATIONALE

This SAE document has been revised to include metric dimensions, the reference section has been updated, surface finish and fillet specifications have been upgraded to present industry standards and a scope has been added to complete the document.

1. SCOPE

This SAE Standard specifies basic tolerances and dimensions for inboard propeller-shaft ends, propeller hubs and keyways for shaft sizes 3/4 in (19 mm) through 8 in (203 mm).

2. REFERENCES

2.1 Applicable Publications

The following publications form a part of this specification to the extent specified herein. Unless otherwise specified, the latest issue of SAE publications shall apply.

2.1.1 ASME Publications

Available from American Society of Mechanical Engineers, 22 Law Drive, Fairfield, N.J. 07007, Tel: 973-882-1170, www.asme.org. (Also available from ANSI, 25 West 43rd Street, New York, NY 10036-8002, Tel: 212-642-4900, www.ansi.org.)

ASME B18.2.2 Square and Hex Nuts

ASME B46.1 Surface Texture, Surface Roughness, Waviness and Lay

3. TOLERANCES FOR SAE MARINE TAPERS—SURFACE FINISH

The machined surfaces of propeller hubs, shafting, and keyways shall have a surface finish of 32 uin RMS, 29 uin RA (0.81 um RMS, 0.74 um RA) maximum as defined by ASME B46.1.

3.1 Basic Dimensions

Taper per foot measured on the diameter and diameter of small end of taper shall be basic dimensions.

SAE Technical Standards Board Rules provide that: "This report is published by SAE to advance the state of technical and engineering sciences. The use of this report is entirely voluntary, and its applicability and suitability for any particular use, including any patent infringement arising therefrom, is the sole responsibility of the user."

SAE reviews each technical report at least every five years at which time it may be reaffirmed, revised, or cancelled. SAE invites your written comments and suggestions.

Copyright © 2009 SAE International

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of SAE.

TO PLACE A DOCUMENT ORDER: Tel: 877-606-7323 (inside USA and Canada)
 Tel: 724-776-4970 (outside USA)
 Fax: 724-776-0790
 Email: CustomerService@sae.org

SAE WEB ADDRESS:

<http://www.sae.org>

3.2 Taper Tolerances for Hub Bores

Sizes 3/4 in (19 mm) to 1 1/4 in (32 mm) inclusive, 0.7500 in (19 mm) (+0.0000, -0.0020) in taper per ft
 Sizes 1 3/8 in (35 mm) to 2 in (51 mm) inclusive, 0.7500 in (19 mm) (+0.0000, -0.0019) in taper per ft
 Sizes 2 1/4 in (57 mm) to 3 in (76 mm) inclusive, 0.7500 in (19 mm) (+0.0000, -0.0015) in taper per ft
 Sizes 3 1/4 in (83 mm) to 5 1/2 in (140 mm) inclusive, 0.7500 in (19 mm) (+0.0000, -0.0013) in taper per ft
 Sizes 6 in (152 mm) to 8 in (203 mm) inclusive, 1.0000 in (25 mm) (+0.0000, -0.0013) in taper per ft

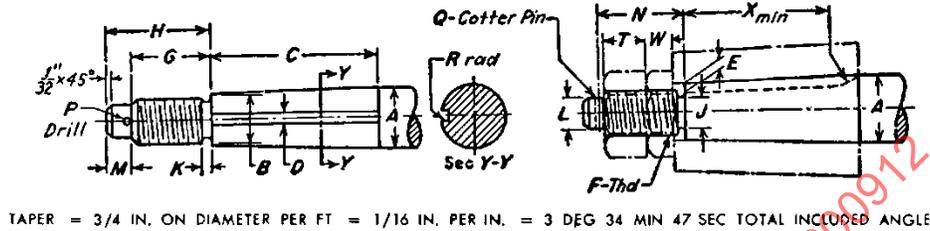


FIGURE 1 - PROPELLER-SHAFT ENDS

TABLE 1 - DIMENSIONS FOR SHAFTS FROM 3/4 in (19 mm) TO 3 in (76 mm) IN DIAMETER

Nominal Shaft Dia, A	Dia Small End B Min	Dia Small End B Max	Taper Length, C	Keyway Width, D Nominal	Keyway Width, D Min	Keyway Width, D Max	Keyway Side Depth ⁽¹⁾ E Nominal	Keyway Side Depth ⁽¹⁾ Min	Keyway Side Depth ⁽¹⁾ Max	Keyway Fillet Radius, ⁽²⁾ R	Thread ⁽³⁾ F Dia	Thread ⁽³⁾ F Threads per in	End of Taper to End of Thread, G	Extension Beyond Taper, H
0.75 (19.05)	0.624 (15.85)	0.626 (15.90)	2 (50.80)	0.19 (4.83)	0.1865 (4.74)	0.1875 (4.76)	0.09 (2.29)	0.095 (2.41)	0.097 (2.46)	0.03 (0.76)	1/2	13	1.06 (26.92)	1.31 (33.27)
0.88 (22.35)	0.726 (18.44)	0.728 (18.49)	2.38 (60.45)	0.25 (6.35)	0.249 (6.32)	0.250 (6.35)	0.13 (3.30)	0.125 (3.18)	0.127 (3.23)	0.03 (0.76)	5/8	11	1.25 (31.75)	1.5 (38.10)
1 (25.40)	0.827 (21.01)	0.829 (21.06)	2.75 (69.85)	0.25 (6.35)	0.249 (6.32)	0.250 (6.35)	0.13 (3.30)	0.125 (3.18)	0.127 (3.23)	0.03 (0.76)	3/4	10	1.43 (36.32)	1.75 (44.45)
1.13 (28.70)	0.929 (23.60)	0.931 (23.65)	3.13 (79.50)	0.25 (6.35)	0.249 (6.32)	0.250 (6.35)	0.13 (3.30)	0.125 (3.18)	0.127 (3.23)	0.03 (0.76)	3/4	10	1.43 (36.32)	1.75 (44.45)
1.25 (31.75)	1.030 (26.16)	1.032 (26.21)	3.5 (88.90)	0.31 (7.87)	0.3115 (7.91)	0.3125 (7.94)	0.16 (4.06)	0.157 (3.99)	0.160 (4.06)	0.06 (1.52)	7/8	9	1.63 (41.40)	2 (50.80)
1.38 (35.05)	1.132 (28.75)	1.134 (28.80)	3.88 (98.55)	0.31 (7.87)	0.3115 (7.91)	0.3125 (7.94)	0.16 (4.06)	0.157 (3.99)	0.160 (4.06)	0.06 (1.52)	1	8	1.81 (45.97)	2.25 (57.15)
1.50 (38.10)	1.233 (31.32)	1.235 (31.37)	4.25 (107.95)	0.38 (9.65)	0.374 (9.50)	0.375 (9.53)	0.19 (4.83)	0.189 (4.80)	0.192 (4.88)	0.06 (1.52)	1 1/8	7	2 (50.80)	2.43 (61.72)
1.75 (44.45)	1.437 (36.50)	1.439 (36.55)	5 (127.00)	0.44 (11.18)	0.4365 (11.09)	0.4375 (11.11)	0.22 (5.59)	0.219 (5.56)	0.222 (5.64)	0.06 (1.52)	1 1/4	7	2.25 (57.15)	2.75 (69.85)
2 (50.80)	1.640 (41.66)	1.642 (41.71)	5.75 (146.05)	0.5 (12.70)	0.499 (12.67)	0.500 (12.70)	0.25 (6.35)	0.251 (6.38)	0.254 (6.45)	0.06 (1.52)	1 1/2	6	2.63 (66.80)	3.13 (79.50)
2.25 (57.15)	1.843 (46.81)	1.845 (46.86)	6.5 (165.10)	0.56 (14.22)	0.561 (14.25)	0.5625 (14.29)	0.28 (7.11)	0.281 (7.14)	0.284 (7.21)	0.09 (2.29)	1 3/4	5	3 (76.20)	3.5 (88.90)
2.50 (63.50)	2.046 (51.97)	2.048 (52.02)	7.25 (184.15)	0.63 (16.00)	0.6235 (15.84)	0.625 (15.88)	0.31 (7.87)	0.315 (8.00)	0.312 (7.92)	0.09 (2.29)	1 3/4	5	3 (76.20)	3.5 (88.90)
2.75 (69.85)	2.257 (57.33)	2.259 (57.38)	7.88 (200.15)	0.63 (16.00)	0.6235 (15.84)	0.625 (15.88)	0.31 (7.87)	0.313 (7.95)	0.316 (8.03)	0.09 (2.29)	2	4-1/2	3.5 (88.90)	4 (101.60)
3 (76.20)	2.460 (62.48)	2.462 (62.53)	8.63 (219.20)	0.75 (19.05)	0.7485 (19.01)	0.750 (19.05)	0.31 (7.87)	0.311 (7.90)	0.314 (7.98)	0.09 (2.29)	2 1/4	4-1/2	3.88 (98.55)	4.38 (111.25)

1. Keyway shall be cut parallel to taper.
2. Fillets are mandatory for keyways on all shaft diameters.
3. Threads are Unified.

TABLE 2 - DIMENSIONS FOR SHAFTS FROM 3/4 in (19 mm) TO 3 in (76 mm) IN DIAMETER (CONTINUED)

Nominal Shaft Dia, A	Undercut J	Undercut K	Dia of Pin End, L	Length Of Pin End, M	Cotter Pin Hole N	Cotter Pin Hole P (Drill)	Cotter Pin, Q Nominal Dia	Cotter Pin, Q Nominal Length	Nuts ⁽¹⁾ Size	Plain Thickness T	Jam Thickness, W	Keyway Length, X Min
0.75 (19.05)	0.39 (9.91)	0.13 (3.30)	0.38 (9.65)	0.25 (6.35)	1.14 (28.96)	0.14 (3.56)	0.13 (3.30)	0.75 (19.05)	1/2—13	0.5 (12.70)	0.31 (7.87)	1.5 (38.10)
0.88 (22.35)	0.48 (12.19)	0.13 (3.30)	0.44 (11.18)	0.25 (6.35)	1.33 (33.78)	0.14 (3.56)	0.13 (3.30)	0.75 (19.05)	5/8—11	0.63 (16.00)	0.38 (9.65)	1.78 (45.21)
1 (25.40)	0.59 (14.99)	0.13 (3.30)	0.5 (12.70)	0.31 (7.87)	1.52 (38.61)	0.14 (3.56)	0.13 (3.30)	1 (25.40)	3/4—10	0.75 (19.05)	0.44 (11.18)	2.13 (54.10)
1.13 (28.70)	0.59 (14.99)	0.13 (3.30)	0.5 (12.70)	0.31 (7.87)	1.52 (38.61)	0.14 (3.56)	0.13 (3.30)	1 (25.40)	3/4—10	0.75 (19.05)	0.44 (11.18)	2.13 (54.10)
1.25 (31.75)	0.72 (18.29)	0.13 (3.30)	0.63 (16.00)	0.38 (9.65)	1.72 (43.69)	0.17 (4.32)	0.16 (4.06)	1.25 (31.75)	7/8—9	0.88 (22.35)	0.5 (12.70)	2.81 (71.37)
1.38 (35.05)	0.81 (20.57)	0.13 (3.30)	0.75 (19.05)	0.44 (11.18)	1.91 (48.51)	0.17 (4.32)	0.16 (4.06)	1.5 (38.10)	1 —8	1 (25.40)	0.56 (14.22)	3.19 (81.03)
1.5 (38.10)	0.91 (23.11)	0.19 (4.83)	0.88 (22.35)	0.44 (11.18)	2.09 (53.09)	0.17 (4.32)	0.16 (4.06)	1.5 (38.10)	1-1/8—7	1.13 (28.70)	0.63 (16.00)	3.5 (88.90)
1.75 (44.45)	1.03 (26.16)	0.19 (4.83)	1 (25.40)	0.5 (12.70)	2.36 (59.94)	0.2 (5.08)	0.19 (4.83)	1.75 (44.45)	1-1/4—7	1.25 (31.75)	0.75 (19.05)	4.22 (107.19)
2 (50.80)	1.25 (31.75)	0.19 (4.83)	1.25 (31.75)	0.5 (12.70)	2.73 (69.34)	0.2 (5.08)	0.19 (4.83)	2 (50.80)	1-1/2—6	1.5 (38.10)	0.88 (22.35)	4.94 (125.48)
2.25 (57.15)	1.38 (35.05)	0.19 (4.83)	1.38 (35.05)	0.5 (12.70)	3.14 (79.76)	0.27 (6.86)	0.25 (6.35)	2.25 (57.15)	1-3/4—5	1.75 (44.45)	1 (25.40)	5.63 (143.00)
2.5 (63.50)	1.44 (36.58)	0.19 (4.83)	1.44 (36.58)	0.5 (12.70)	3.14 (79.76)	0.27 (6.86)	0.25 (6.35)	2.25 (57.15)	1-3/4—5	1.75 (44.45)	1 (25.40)	6.09 (154.69)
2.75 (69.85)	1.69 (42.93)	0.25 (6.35)	1.69 (42.93)	0.5 (12.70)	3.64 (92.46)	0.27 (6.86)	0.25 (6.35)	2.5 (63.50)	2 —4-1/2	2 (50.80)	1.13 (28.70)	6.66 (169.16)
3 (76.20)	1.94 (49.28)	0.25 (6.35)	1.94 (49.28)	0.5 (12.70)	4.02 (102.11)	0.27 (6.86)	0.25 (6.35)	3 (76.20)	2-1/4—4-1/2	2.25 (57.15)	1.25 (31.75)	7.34 (186.44)

1. Nuts are to be semifinished stock per ASME B18.2.2..

3.3 Taper Tolerances for Shafts

Sizes 3/4 in (19 mm) to 1 1/4 in (32 mm) inclusive, 0.7500 in (19 mm) (+0.0020, -0.0000) in taper per ft
 Sizes 1 3/8 in (35 mm) to 2 in (51 mm) inclusive, 0.7500 in (19 mm) (+0.0019, -0.0000) in taper per ft
 Sizes 2 1/4 in (57 mm) to 3 in (76 mm) inclusive, 0.7500 in (19 mm) (+0.0015, -0.0000) in taper per ft
 Sizes 3 1/4 in (83 mm) to 5 1/2 in (140 mm) inclusive, 0.7500 in (19 mm) (+0.0013, -0.0000) in taper per ft
 Sizes 6 in (152 mm) to 8 in (203 mm) inclusive, 1.0000 in (25 mm) (+0.0013, -0.0000) in taper per ft

4. BASIC DATA—KEYWAYS

The keyway shall be cut parallel to the shaft taper. At the small end of the hub length and shaft taper length, the keyway shall have the specified side depth. The keyway side depth shall be measured normal to the axis of the taper, not normal to the surface of the taper. The top corners of the keyways shall be rounded to a radius half of that used at the bottom of the keyway.

4.1 Keys

Keys for use in filleted keyways must be chamfered so that the corners of the key do not touch the keyway fillets.

4.2 Small-End Diameter of Taper for Hubs

For nominal bore diameters 3/4 in (83 mm) to 4 in (102 mm) inclusive, the small end of the taper shall be 0.8125 times the nominal bore diameter.

For nominal bore diameters 4 1/2 in (114 mm) to 5 1/2 in (140 mm) inclusive, the small end of the taper shall be 0.84375 times the nominal bore diameter.

For nominal bore diameters 6 in (152 mm) to 8 in (203 mm) inclusive, the small end of the taper shall be 0.79167 times the nominal bore diameter.

4.3 Small-End Diameter of Taper for Shafts

For nominal shaft diameters $\frac{3}{4}$ in (19 mm) to $2\frac{1}{2}$ in (64 mm) inclusive, the small end of the taper shall be 0.8125 times the nominal shaft diameter plus 0.01562 in (0.39675 mm).

For nominal shaft diameters $2\frac{3}{4}$ in (70 mm) to 4 in (102 mm) inclusive, the small end of the taper shall be 0.8125 times the nominal shaft diameter plus 0.02344 in (0.59538 mm).

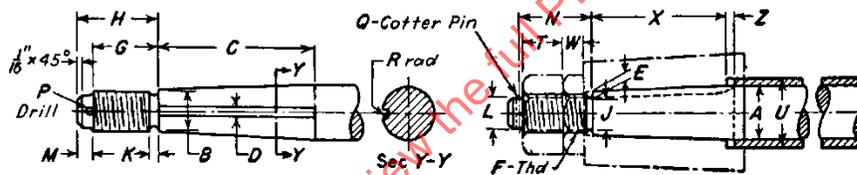
For nominal shaft diameters $4\frac{1}{2}$ in (114 mm) to $5\frac{1}{2}$ in (140 mm) inclusive, the small end of the taper shall be 0.84375 times the nominal shaft diameter plus 0.03125 in (0.79375 mm).

For nominal shaft diameters 6 in (152 mm) to 8 in (203 mm) inclusive, the small end of the taper shall be 0.79167 times the nominal shaft diameter plus 0.04167 in (1.05842 mm).

4.4 Intermediate-Size Tapers

The required small-end taper diameter of hub bore and shaft end for intermediate diameters not covered by this Standard shall be calculated from data given above using the next smaller standard taper data.

The keyway for intermediate-size hub bore and shaft end shall be that specified for the next smallest standard bore and shaft.



TAPER OF SHAFTS LESS THAN 6 IN. DIAMETER = $\frac{3}{4}$ IN. ON DIAMETER PER FT = $\frac{1}{16}$ IN. PER IN. = 3 DEG 34 MIN 47 SEC TOTAL INCLUDED ANGLE
 TAPER OF SHAFTS 6 IN. AND LARGER = 1 IN. ON DIAMETER PER FT = $\frac{1}{12}$ IN. PER IN. = 4 DEG 46 MIN 19 SEC TOTAL INCLUDED ANGLE

FIGURE 2-- PROPELLER-SHAFT ENDS

TABLE 3 - DIMENSIONS FOR SHAFTS FROM 3-1/4 in (83 mm) TO 8 in (203 mm) IN DIAMETER⁽¹⁾

Nominal Shaft Dia, A	Dia Small End, B Min	Dia Small End, B Max	Taper Length, C	Keyway Width, D Nominal	Keyway Width D Min	Keyway Width D Max	Keyway Side Depth, E Nominal	Keyway Side Depth ⁽²⁾ E Min	Keyway Side Depth ⁽²⁾ E Max	Keyway Fillet Radius, R	Thread ⁽³⁾ F Dia	Threads ⁽³⁾ F Threads per in	End of Taper to End of Thread G	Extension Beyond Taper, H
3.25	2.663 (67.64)	2.665 (67.69)	9.38 (238.25)	0.75 (19.05)	0.7485 (19.01)	0.750 (19.05)	0.31 (7.87)	0.311 (7.90)	0.314 (7.98)	0.13 (3.30)	2 1/2	4	4.38 (111.25)	5.13 (130.30)
3.5	2.866 (72.80)	2.868 (72.85)	10.13 (257.30)	0.88 (22.35)	0.8735 (22.19)	0.875 (22.23)	0.31 (7.87)	0.310 (7.87)	0.313 (7.95)	0.13 (3.30)	2 1/2	4	4.38 (111.25)	5.13 (130.30)
3.75	3.069 (77.95)	3.071 (78.00)	10.88 (276.35)	0.88 (22.35)	0.8735 (22.19)	0.875 (22.23)	0.31 (7.87)	0.310 (7.87)	0.313 (7.95)	0.13 (3.30)	2 3/4	4	4.75 (120.65)	5.5 (139.70)
4	3.272 (83.11)	3.274 (83.16)	11.63 (295.40)	1 (25.40)	0.9985 (25.36)	1.000 (25.40)	0.31 (7.87)	0.309 (7.85)	0.312 (7.92)	0.13 (3.30)	3	4	5.13 (130.30)	5.88 (149.35)
4.5	3.827 (97.21)	3.829 (97.26)	10.75 (273.05)	1.13 (28.70)	1.123 (28.52)	1.125 (28.58)	0.38 (9.65)	0.373 (9.47)	0.376 (9.55)	0.16 (4.06)	3 1/4	4	5.63 (143.00)	6.38 (162.05)
5	4.249 (107.92)	4.251 (107.98)	12 (304.80)	1.25 (31.75)	1.248 (31.70)	1.250 (31.75)	0.44 (11.18)	0.434 (11.02)	0.437 (11.10)	0.19 (4.83)	3 3/4	4	6.38 (162.05)	7.13 (181.10)
5.5	4.671 (118.64)	4.673 (118.69)	13.25 (336.55)	1.25 (31.75)	1.248 (31.70)	1.250 (31.75)	0.44 (11.18)	0.435 (11.05)	0.438 (11.13)	0.19 (4.83)	4	4	6.75 (171.45)	7.75 (196.85)
6	4.791 (121.69)	4.793 (121.74)	14.5 (368.30)	1.38 (35.05)	1.373 (34.87)	1.375 (34.93)	0.5 (12.70)	0.493 (12.52)	0.496 (12.60)	0.22 (5.59)	4 1/4	4	7.5 (190.50)	8.5 (215.90)
6.5	5.187 (131.75)	5.189 (131.80)	15.75 (400.05)	1.38 (35.05)	1.373 (34.87)	1.375 (34.93)	0.5 (12.70)	0.494 (12.55)	0.497 (12.62)	0.22 (5.59)	4 1/2	4	8.25 (209.55)	9.25 (234.95)
7	5.582 (141.78)	5.584 (141.83)	17 (431.80)	1.5 (38.10)	1.498 (38.05)	1.500 (38.10)	0.56 (14.22)	0.555 (14.10)	0.558 (14.17)	0.25 (6.35)	5	4	9 (228.60)	10 (254.00)
7.5	5.978 (151.84)	5.980 (151.89)	18.25 (463.55)	1.5 (38.10)	1.498 (38.05)	1.500 (38.10)	0.56 (14.22)	0.556 (14.12)	0.559 (14.20)	0.25 (6.35)	5 1/2	4	9.38 (238.25)	10.38 (263.65)
8	6.374 (161.90)	6.376 (161.95)	19.5 (495.30)	1.75 (44.45)	1.748 (44.40)	1.750 (44.45)	0.56 (14.22)	0.553 (14.05)	0.556 (14.12)	0.25 (6.35)	5 3/4	4	9.75 (247.65)	10.75 (273.05)

1. A steel shaft may be used in salt water if a suitable aft Fairwater is used.

2. Keyway shall be cut parallel to taper.

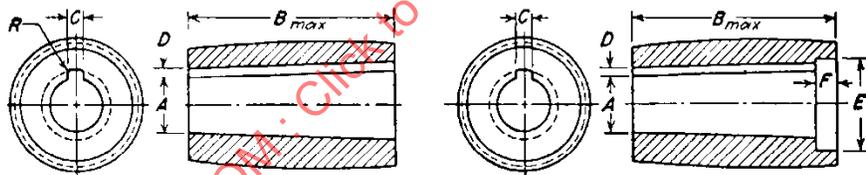
3. Threads are Unified and American Standard, Class 3A.

SAENORM.COM : Click to view the full PDF of J755-2009/2

TABLE 4 - DIMENSIONS FOR SHAFTS FROM 3-1/4 in (83 mm) TO 8 in (203 mm) IN DIAMETER⁽¹⁾ (CONTINUED)

Nominal Shaft Dia, A	Undercut J	Undercut K	Dia of Pin End, L	Length of Pin End, M	Cotter Pin Hole N	Cotter Pin Hole P (Drill)	Cotter Pin Q Nominal Dia	Cotter Pin Q Length	Nuts(2) Size	Nuts(2) Plain Thickness T	Nuts(2) Jam Thickness W	Sleeve Dia ⁽³⁾ U Min	Sleeve Dia ⁽³⁾ U Max	Clearance Z	Keyway X
3.25 (82.55)	2.13 (54.10)	0.38 (9.65)	2.13 (54.10)	0.75 (19.05)	4.58 (116.33)	0.39 (9.91)	0.38 (9.65)	3 (76.20)	2-1/2-4	2.5 (63.50)	1.5 (38.10)	3.870 (98.30)	3.872 (98.35)	0.38 (9.65)	8.5 (215.90)
3.5 (88.90)	2.13 (54.10)	0.38 (9.65)	2.13 (54.10)	0.75 (19.05)	4.58 (116.33)	0.39 (9.91)	0.38 (9.65)	3 (76.20)	2-1/2-4	2.5 (63.50)	1.5 (38.10)	4.120 (104.65)	4.122 (104.70)	0.38 (9.65)	9.25 (234.95)
3.75 (95.25)	2.38 (60.45)	0.38 (9.65)	2.38 (60.45)	0.75 (19.05)	4.95 (125.73)	0.39 (9.91)	0.38 (9.65)	3.5 (88.90)	2-3/4-4	2.75 (69.85)	1.63 (41.40)	4.369 (110.97)	4.371 (111.02)	0.38 (9.65)	10 (254.00)
4 (101.60)	2.5 (63.50)	0.38 (9.65)	2.5 (63.50)	0.75 (19.05)	5.33 (135.38)	0.39 (9.91)	0.38 (9.65)	3.5 (88.90)	3 — 4	3 (76.20)	1.75 (44.45)	4.619 (117.32)	4.621 (117.37)	0.38 (9.65)	10.5 (266.70)
4.5 (114.30)	2.75 (69.85)	0.38 (9.65)	2.75 (69.85)	0.75 (19.05)	—	—	—	—	3-1/4-4	3.25 (82.55)	1.88 (47.75)	5.243 (133.17)	5.245 (133.22)	0.5 (12.70)	9.63 (244.60)
5 (127.00)	3.25 (82.55)	0.38 (9.65)	3.25 (82.55)	0.75 (19.05)	—	—	—	—	3-3/4-4	3.75 (95.25)	2.13 (54.10)	5.993 (152.22)	5.995 (152.27)	0.5 (12.70)	10.88 (276.35)
5.5 (139.70)	3.5 (88.90)	0.5 (12.70)	3.5 (88.90)	1 (25.40)	—	—	—	—	4 — 4	4 (101.60)	2.25 (57.15)	6.492 (164.90)	6.494 (164.95)	0.5 (12.70)	12.13 (308.10)
6 (152.40)	3.88 (98.55)	0.5 (12.70)	3.88 (98.55)	1 (25.40)	—	—	—	—	4-1/4-4	4.25 (107.95)	2.25 (57.15)	6.992 (177.60)	6.994 (177.65)	0.5 (12.70)	13.25 (336.55)
6.5 (165.10)	4.38 (111.25)	0.5 (12.70)	4.38 (111.25)	1 (25.40)	—	—	—	—	4-1/2-4	4.5 (114.30)	2.5 (63.50)	7.492 (190.30)	7.494 (190.35)	0.5 (12.70)	14.38 (365.25)
7 (177.80)	4.88 (123.95)	0.5 (12.70)	4.88 (123.95)	1 (25.40)	—	—	—	—	5 — 4	5 (127.00)	2.75 (69.85)	8.117 (206.17)	8.120 (206.25)	0.5 (12.70)	15.63 (397.00)
7.5 (190.50)	5.13 (130.30)	0.5 (12.70)	5.13 (130.30)	1 (25.40)	—	—	—	—	5-1/2-4	5.5 (139.70)	3 (76.20)	8.616 (218.85)	8.619 (218.92)	0.5 (12.70)	16.88 (428.75)
8 (203.20)	5.38 (136.65)	0.5 (12.70)	5.38 (136.65)	1 (25.40)	—	—	—	—	5-3/4-4	5.75 (146.05)	3.13 (79.50)	9.240 (234.70)	9.243 (234.77)	0.5 (12.70)	18.13 (460.50)

1. A steel shaft may be used in salt water if a suitable aft Fairwater is used.
2. Nuts are to be semifinished stock per ASME B18.2.2..
3. The shaft sleeve shown is recommended practice, but the use of a sleeve is optional.



TAPER = 3/4 IN. ON DIAMETER PER FT = 1/16 IN. PER IN. = 3 DEG 34 MIN 47 SEC TOTAL INCLUDED ANGLE

FIGURE 3 - PROPELLER HUBS

TABLE 5 - HUBS FOR SHAFTS FROM 3/4 in (19 mm) TO 3 in (76 mm) IN DIAMETER,
INCLUSIVE, WITHOUT SLEEVE⁽¹⁾

Nominal Bore Dia	Dia Small End, A Min	Dia Small End, A Max	Length, B Max	Keyway Width, C Nominal	Keyway Width C Min	Keyway Width C Max	Keyway Side Depth, D Nominal	Keyway Side Depth ⁽²⁾ D Min	Keyway Side Depth ⁽²⁾ D Max	Keyway Fillet Radius ⁽³⁾ R
0.75 (19.05)	0.608 (15.44)	0.610 (15.49)	2.25 (57.15)	0.19 (4.83)	0.1865 (4.74)	0.1875 (4.76)	0.09 (2.29)	0.098 (2.49)	0.100 (2.54)	0.03 (0.76)
0.88 (22.35)	0.710 (18.03)	0.712 (18.08)	2.63 (66.80)	0.25 (6.35)	0.249 (6.32)	0.250 (6.35)	0.13 (3.30)	0.129 (3.28)	0.131 (3.33)	0.03 (0.76)
1 (25.40)	0.811 (20.60)	0.813 (20.65)	3 (76.20)	0.25 (6.35)	0.249 (6.32)	0.250 (6.35)	0.13 (3.30)	0.129 (3.28)	0.131 (3.33)	0.03 (0.76)
1.13 (28.70)	0.913 (23.19)	0.915 (23.24)	3.38 (85.85)	0.25 (6.35)	0.249 (6.32)	0.250 (6.35)	0.13 (3.30)	0.129 (3.28)	0.131 (3.33)	0.03 (0.76)
1.25 (31.75)	1.015 (25.78)	1.017 (25.83)	3.75 (95.25)	0.31 (7.87)	0.3115 (7.91)	0.3125 (7.94)	0.16 (4.06)	0.162 (4.11)	0.165 (4.19)	0.06 (1.52)
1.38 (35.05)	1.116 (28.35)	1.118 (28.40)	4.13 (104.90)	0.31 (7.87)	0.3115 (7.91)	0.3125 (7.94)	0.16 (4.06)	0.162 (4.11)	0.165 (4.19)	0.06 (1.52)
1.5 (38.10)	1.218 (30.94)	1.220 (30.99)	4.5 (114.30)	0.38 (9.65)	0.374 (9.50)	0.375 (9.53)	0.19 (4.83)	0.195 (4.95)	0.198 (5.03)	0.06 (1.52)
1.75 (44.45)	1.421 (36.09)	1.423 (36.14)	5.25 (133.35)	0.44 (11.18)	0.4365 (11.09)	0.4375 (11.11)	0.22 (5.59)	0.226 (5.74)	0.229 (5.82)	0.06 (1.52)
2 (50.80)	1.624 (41.25)	1.626 (41.30)	6 (152.40)	0.5 (12.70)	0.499 (12.67)	0.500 (12.70)	0.25 (6.35)	0.259 (6.58)	0.262 (6.65)	0.06 (1.52)
2.25 (57.15)	1.827 (46.41)	1.829 (46.46)	6.75 (171.45)	0.56 (14.22)	0.561 (14.25)	0.5625 (14.29)	0.28 (7.11)	0.291 (7.39)	0.294 (7.47)	0.09 (2.29)
2.5 (63.50)	2.030 (51.56)	2.032 (51.61)	7.5 (190.50)	0.63 (16.00)	0.6235 (15.84)	0.625 (15.88)	0.31 (7.87)	0.322 (8.18)	0.325 (8.26)	0.09 (2.29)
2.75 (69.85)	2.233 (56.72)	2.235 (56.77)	8.25 (209.55)	0.63 (16.00)	0.6235 (15.84)	0.625 (15.88)	0.31 (7.87)	0.322 (8.18)	0.325 (8.26)	0.09 (2.29)
3 (76.20)	2.437 (61.90)	2.439 (61.95)	9 (228.60)	0.75 (19.05)	0.7485 (19.01)	0.750 (19.05)	0.31 (7.87)	0.323 (8.20)	0.326 (8.28)	0.09 (2.29)

1. For intermediate sizes and other design data, see Basic Data.
2. Keyway shall be cut parallel to taper. Keyway side depth is measured normal to axis of taper.
3. Fillets are mandatory for keyways in all hubs.

SAENORM.COM : Click to view the full PDF of J755-200912