652 Oliver Street
Williamsport, PA. 17701 U.S.A.

Telephone +1 (877) 839-7878 (U.S. and Canada)
Telephone +1 (570) 327-7222 (International)
Fax +1 (570) 327-7101
Email Technicalsupport@lycoming.com

www.lycoming.com

SERVICE INSTRUCTION

DATE: April 8, 2020

Service Instruction No. 1098Q
(Supersedes Service Instruction No. 1098P)
Engineering Aspects are
FAA Approved

SUBJECT: Propeller Flange Bushing Location

MODELS AFFECTED: All Certified Lycoming direct drive engines.

TIME OF COMPLIANCE: At owner's discretion.

REASON FOR REVISION: Added IO-390-D1A6, -D1B6, -D3A6, -D3B6 engine models to Table 1

NOTICE: Incomplete review of all the information in this document can cause errors. Read the entire Service Instruction to make sure you have a complete understanding of the requirements.

For correct propeller operation, bushings must be installed in the correct location on the propeller flange. This Service Instruction is an aide to identify the correct part numbers, dimensions, and respective installation locations for propeller flange bushings on Lycoming engine models. A checklist is included to record measurements.

There are two sizes of propeller flange configurations (shown in Figures 1 and 2), each with different locations for the bushings. Figure 1 shows the smaller propeller flange. Figure 2 shows the larger propeller flange. The propeller flanges also have different thickness dimensions as shown in Table 1. Table 1 is a list of engine models, flange thickness for each model, and the propeller flange bushing part numbers that correspond to each location (A, B, C, D, E, or F); see Figures 1 and 2. As an added reference, Figure 3 shows Dimensions A and B which correspond to bushing part numbers and dimensions shown in Table 2 of this Service Instruction. For correct indexing, the specified sized bushing in Tables 1 and 2 must be installed in the respective location on the propeller flange as shown in Figures 1 and 2.

⚠ **CAUTION:** IF THE CORRECT BUSHING IS NOT INSTALLED IN THE SPECIFIED LOCATION, THE PROPELLER WILL NOT BE INDEXED CORRECTLY AND EXCESSIVE PROPELLER BLADE STRESSES CAN OCCUR.

To find the correct bushing part number for your propeller flange as follows:

1. Identify whether you have a Type 1 propeller flange (Figure 1) or a Type 2 propeller flange as follows:
   a. Measure from one propeller attaching bushing across the center of the propeller flange to the opposite bushing.
   b. If this measurement is 4-3/8 in. (11.1 cm), you have a Type 1 propeller flange. Use Figure 1 as your reference for bushing installation locations.
   c. If the measurement is 4-3/4 in. (12.0 cm), you have a Type 2 propeller flange. Use Figure 2 as your reference for bushing installation locations.

2. Measure and record the features of the crankshaft mounting flange on the checklist at the end of this Service Instruction.
3. Measure the outside diameter and height of the bushing (Dimensions A and B) in Figure 3. Record measurements on the checklist at the end of this Service Instruction. Refer to bushing part numbers that correspond to Dimensions A and B in Table 2. Use a bushing that will give a 0.0005 to 0.0020 in. (0.0127 to 0.0508 mm) tight fit between the bushing and its bore.
4. Refer to Tables 1 and 2 to identify the correct bushing part number by engine model, propeller flange thickness, and installation location for the corresponding propeller flange in Figure 1 or 2.
5. In Table 1, each bushing location configuration has a reference point (indexed part number) indicated by a ■.

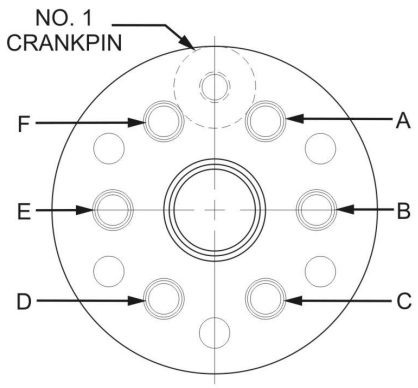

Figure 1
Type 1. Prop. Flange Bushing Location
4-3/8 in. (11.1 cm) diameter

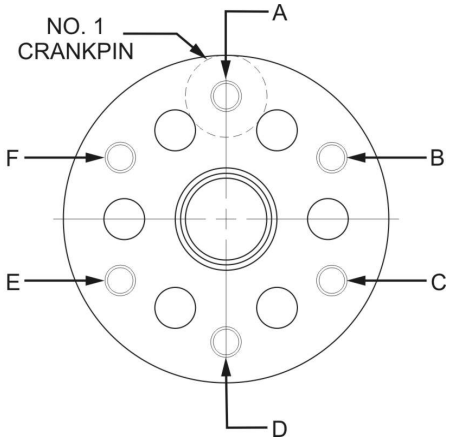

Figure 2
Type 2. Prop. Flange Bushing Location
4-3/4 in. (12.0 cm) diameter

NOTE: Flanges are viewed from the front of the engine looking aft.

NOTE

For O-340-A and O-320 constant speed models incorporating 3/8 in. (9.53 mm) bolts, see the latest revision of Lycoming Service Bulletin No. 253.

Table 1
Bushing Locations by Engine Model

Lycoming Engine Models	Flange Thickness		Type	Fig. Ref.	Bushing Location on Figure	
	in.	mm.			Installation Location	Bushing P/N
O-235-C1B, -C2A, -C2B, -C2C, -F2A, -F2B, -H2C, -J2A, -K2A, -K2B, -K2C, -L2A, -L2C, -N2A, -N2C (Fixed Pitch); **O-235**-E2A, -G2A, -P2A (Constant Speed)	0.19	4.8	1	1	A	60814-S
					B	60814-S
					C	60814-S
					D	60814-S
					E	73757-S ■
					F	60814-S

Table 1 (Cont.)
Bushing Locations by Engine Model

Lycoming Engine Models	Flange Thickness		Type	Fig. Ref.	Bushing Location on Figure	
	in.	mm.			Installation Location	Bushing P/N
O-235-C1, -C1B (Constant Speed)	0.19	4.8	2	2	A	60814-S ■
					B	60814-S
					C	60814-S
					D	60814-S
					E	60814-S
					F	60814-S
O-235-C1, -C1B, -C1C, -F1B, -M1 (Fixed Pitch)	0.19	4.8	2	2	A	73757-S ■
					B	60814-S
					C	60814-S
					D	60814-S
					E	60814-S
					F	60814-S
O-290 Series	0.27	6.8	2	2	A	72067-S ■
					B	72067-S
					C	72067-S
					D	72067-S
					E	72067-S
					F	72067-S
O-320-A2A, -A2B, -A2C, -A2D, -B2A, -B2B, -B2C, -D2A, -D2B, -D2C, -D3G, -E2A, -E2B, -E2C, -E2F -E3D, -E3H; **IO-320**-E2A, -E2B; **AEIO-320**-E2A, -E2B	0.27	6.8	2	2	A	72066-S ■
					B	72067-S
					C	72067-S
					D	72067-S
					E	72067-S
					F	72067-S
	0.38	9.6	2	2	A	LW-18921 S ■
					B	LW-18922-S
					C	LW-18922-S
					D	LW-18922-S
					E	LW-18922-S
					F	LW-18922-S
O-320-A1A, -A1B, -A3A, -A3B, -A3C, -B1A, -B1B, -B3A, -B3B, -B3C, -D1A, -D1C, -D1D, -D1F, -E1A, -E1C, -E1F, -E1J; **O-320**-H2AD "76" Series (Constant Speed), -H1CD; **IO-320**-D1A, -D1B, -E1A, -E1B; **AEIO-320**-D1B, -E1A, -E1B; **AIO-320**-A1B, -B1B, -C1B; **LIO-320**-B1A, -C1A, -D1A	0.27	6.8	2	2	A	72065-S ■
					B	72063-S
					C	72064-S
					D	72063-S
					E	72063-S
					F	72064-S
	0.38	9.6	2	2	A	LW-18817-S ■
					B	LW-18815-S
					C	LW-18816-S
					D	LW-18815-S
					E	LW-18815-S
					F	LW-18816-S

Table 1 (Cont.)
Bushing Locations by Engine Model

Lycoming Engine Models	Flange Thickness		Type	Fig. Ref.	Bushing Location on Figure	
	in.	mm.			Installation Location	Bushing P/N
O-320-D2F, -D2G, -D2J, -E2D, -E2G, -E2H; **IO-320**-B2A; **O-320**-H2AD "76" Series (Fixed Pitch); **AEIO-320**-D2B	0.27	6.8	2	2	A	72065-S ■
					B	72063-S
					C	72063-S
					D	72063-S
					E	72063-S
					F	72063-S
	0.38	9.6	2	2	A	LW-18817-S ■
					B	LW-18815-S
					C	LW-18815-S
					D	LW-18815-S
					E	LW-18815-S
					F	LW-18815-S
IO-320-B1A, -B1C, -B1D, -C1A, -F1A	0.27	6.8	2	2	A	72065-S ■
					B	72064-S
					C	72063-S
					D	72063-S
					E	72064-S
					F	72063-S
	0.38	9.6	2	2	A	LW-18817-S ■
					B	LW-18816-S
					C	LW-18815-S
					D	LW-18815-S
					E	LW-18816-S
					F	LW-18815-S
O-360-A1A, -A1AD, -A1B, -A1C, -A1D, -A1F, -A1F6, -A1G, -A1G6, -A1G6D, -A1H, -A1K6, -A1H6, -A1LD, -A2A, -A2D, -A2E, -A2F, -A2G, -A4D, -A4G, -A4J, -A4JD, -A4K, -A4N, -A4P, -A5AD, -B1A, -B1B, -B2A, -B2C, -C1A, -C1C, -C1E, -C1F, -C2A, -C2B, ** -C2C, -C2D, -C2E, -C4F, -C4P, -D2A, -D2B, -D2C, -F1A6, -G1A6; **O-360**-E1AD, -E1A6D "76" Series; **IO-360**-A1A, -A1B, -A1B6, -A1B6D, -A1C, -A1C6, -A1D, -A1D6, -A1D6D, -A2A, -A2B, -A2C, -B1A, -B1B, -B1BD, -B1D, -B1E, -B1F, B1F6, -B1G6, -B2E, -B2F6, -C1A, -C1B, -C1C, -C1CD, -C1C6, -C1D6, -C1E, -C1E6, -C1E6D, -C1F, -C1G6, -D1A, -E1A, -F1A, -L2A, -M1A, -M1B, -N1A; -P1A **AIO-360**-A1A, -A1B, -B1B, -A2A, -A2B; **LIO-360**-B1G6 **AEIO-360**-A1A, -A1B, -A1B6, -A1C, -A1D, -A1E, -A1E6, -A2A, -A2B, -A2C, -B1B, -B1D, -B1F, -B1F6, -B2F6, -B1G6, -H1A, -H1B;	0.38	9.6	2	2	A	72062-S
					B	72062-S
					C	72061-S
					D	72062-S
					E	72062-S
					F	72060-S ■
	0.44	11.11	2	2	A	75656-S
					B	75656-S
					C	72155-S
					D	75656-S
					E	75656-S
					F	75657-S ■

** - Not used if wooden propeller is installed

Table 1 (Cont.)
Bushing Locations by Engine Model

Lycoming Engine Models	Flange Thickness		Type	Fig. Ref.	Bushing Location on Figure	
	in.	mm.			Installation Location	Bushing P/N
TIO-360-E1A6D "76" Series; **TIO-360**-A1B, -A1A6D, -B1A6D, -C1A6D, -F1A6D; **TO-360**-C1A6D; **VO-360**-A1A, -A1B, -B1A, -G1A; **IVO-360**-A1A;	0.38	9.6	2	2	A	72062-S
					B	72062-S
					C	72061-S
					D	72062-S
					E	72062-S
					F	72060-S ■
HO-360-A1A, -B1A, -B1B, -C1A; **HIO-360**-A1A, -B1A, -B1B, -C1A, -C1B, -D1A, -G1A; **LO-360**-A1G6D "76" Series; **LO-360**-A1H6, -A2D**;** **LHIO-360**-C1A	0.44	11.11	2	2	A	75656-S
					B	75656-S
					C	72155-S
					D	75656-S
					E	75656-S
					F	75657-S ■
†**O-360**-C1G; **O-360**-A1P, -A3D6D; **IO-360**-C1G, -A3B6, -A3B6D, -J1A6D	0.38	9.6	2	2	A	72061-S
					B	72062-S
					C	72062-S
					D	72061-S
					E	72062-S
					F	72074-S ■
	0.44	11.11	2	2	A	72155-S
					B	75656-S
					C	75656-S
					D	72155-S
					E	75656-S
					F	79024-S ■
O-360-A3A, -A3AD, -A4A, -A4AD, -A4M; **IO-360**-B2F, -B4A; **AEIO-360**-B2F, -B4A	0.38	9.6	2	2	A	74249-S
					B	74249-S
					C	74249-S
					D	74249-S
					E	74249-S
					F	74248-S ■
	0.44	11.11	2	2	A	LW-18819-S
					B	LW-18819-S
					C	LW-18819-S
					D	LW-18819-S
					E	LW-18819-S
					F	LW-18818-S ■
O-360-J2A	0.44	11.11	2	2	A	01K22155-S
					B	01K22155-S
					C	01K22155-S
					D	01K22155-S
					E	01K22155-S
					F	01K22156-S ■

† - Re-indexed propeller bushings. Refer to the latest revision of Lycoming Service Instruction No. 1452.

Table 1 (Cont.)
Bushing Locations by Engine Model

Lycoming Engine Models	Flange Thickness		Type	Fig. Ref.	Bushing Location on Figure	
	in.	mm.			Installation Location	Bushing P/N
O-360-C2C (Wooden Prop.) (Long Bushings)	0.38	9.6	2	2	A	75561-S
					B	75561-S
					C	75561-S
					D	75561-S
					E	75561-S
					F	75560-S ■
	0.44	11.11	2	2	A	01K21700-S
					B	01K21700-S
					C	01K21700-S
					D	01K21700-S
					E	01K21700-S
					F	01K21699-S ■
IO-360-K2A	0.44	11.11	2	2	A	75656-S
					B	75656-S
					C	75656-S
					D	75656-S
					E	75656-S
					F	79024-S ■
HIO-360-C1A, -C1B, -E1AD, -E1BD, Enstrom (Long Bushings)	0.38	9.6	2	2	A	72061-S
					B	75561-S
					C	75561-S
					D	72061-S
					E	75561-S
					F	75560-S ■
	0.44	11.11	2	2	A	72155-S
					B	01K21700-S
					C	01K21700-S
					D	72155-S
					E	01K21700-S
					F	01K21699-S ■
HIO-360-F1AD Enstrom (Long Bushings)	0.44	11.11	2	2	A	72061-S
					B	75561-S
					C	75561-S
					D	72061-S
					E	75561-S
					F	75560-S ■
LIO-360-M1A	0.44	11.11	2	2	A	75656-S
					B	75656-S
					C	72155-S
					D	75656-S
					E	75656-S
					F	75657-S ■

Table 1 (Cont.)
Bushing Locations by Engine Model

Lycoming Engine Models	Flange Thickness		Type	Fig. Ref.	Bushing Location on Figure	
	in.	mm.			Installation Location	Bushing P/N
LO-360-E1AD, -E1A6D "76" Series; **LIO-360**-C1E6, -C1E6D; **LTO-360**-E1A6D "76"Series	0.38	9.6	2	2	A	72062-S
					B	72061-S
					C	72062-S
					D	72062-S
					E	72061-S
					F	72074-S ■
	0.44	11.11	2	2	A	75656-S
					B	72155-S
					C	75656-S
					D	75656-S
					E	72155-S
					F	79024-S ■
TIO-360-A3B6	0.38	9.6	2	2	A	72062-S
					B	72062-S
					C	72062-S
					D	72062-S
					E	72061-S
					F	72074-S ■
	0.44	11.11	2	2	A	75656-S
					B	75656-S
					C	75656-S
					D	75656-S
					E	72155-S
					F	79024-S ■
IO-390-A1A6, -A1B6, -C1A6, -C1B6, -D1A6, -D1B6 **AEIO-390**-A1A6, -A1B6	0.44	11.11	2	2	A	72155-S
					B	75656-S
					C	75656-S
					D	72155-S
					E	75656-S
					F	79024-S ■
IO-390-A3A6, -A3B6, -C3A6, -C3B6, -D3A6, -D3B6 **AEIO-390**-A3A6, -A3B6	0.44	11.11	2	2	A	75656-S
					B	75656-S
					C	72155-S
					D	75656-S
					E	75656-S
					F	75657-S ■
HIO-390-A1A	0.44	11.11	2	2	A	72061-S
					B	75561-S
					C	75561-S
					D	72061-S
					E	75561-S
					F	75560-S ■

Table 1 (Cont.)
Bushing Locations by Engine Model

Lycoming Engine Models	Flange Thickness		Type	Fig. Ref.	Bushing Location on Figure	
	in.	mm.			Installation Location	Bushing P/N
O-540-A1A,-A1A5,-A1B5,-A1C5,-A1D,-A1D5, -A3D5, -A4A5, -A4B5, -A4D5, -A4E5**,** -B1A5, -B1B5, -B2A5, -B2B5, -B2C5, -B4A5, -B4B5, -E4A5, -E4B5, -E4C5, -F1A5, -F1B5, -G1A5, -G2A5, -H2A5, -H1B5D, -H2B5D, -J1A5D,-J2A5D, -J3A5, -J3A5D, -J3C5D, -L3C5D;	0.38	9.6	2	2	A	72062-S
					B	72062-S
					C	72061-S
					D	72062-S
					E	72062-S
					F	72060-S ■
IO-540-B1C5 (Wide Cyl. Flange), -C1B5, -C1C5, -C4B5, -C4B5D, -C4C5, -C4D5, -C4D5D, -D4A5, -D4B5, -D4C5, -J4A5 (Standard Cyl. Flange), -T4A5D, -T4B5, -T4B5D, -T4C5D, -V4A5, -V4A5D, -W1A5, -W1A5D, -W3A5D; **IO-540**-K1A5, -K1A5D, -K1B5, -K1D5, -K1E5, -K1E5D, -K1G5, -K1G5D, -K1H5, -K1K5, -L1A5, -L1A5D, -L1C5, -M1A5D, -M1B5, -M1B5D, -AA1B5, -AB1A5, -AE1A5, -AF1A5 **AEIO-540**-D4A5, -D4B5, -D4D5, -L1B5, -L1B5D; **TIO-540**-A1A, -A1B, -AA1AD, -AB1AD, -AB1BD, -AF1A, -AF1B, -AG1A, -AH1A, -AK1A, -C1A, -C1AD, -E1A, -G1A, -H1A	0.44	11.11	2	2	A	75656-S
					B	75656-S
					C	72155-S
					D	75656-S
					E	75656-S
					F	75657-S ■
O-540-A2B; **IO-540**-C2C, -G1C5, -J1A5 (Wide Cyl. Flange), -K1C5	0.38	9.6	2	2	A	72062-S
					B	72061-S
					C	72062-S
					D	72062-S
					E	72061-S
					F	72074-S ■
	0.44	11.11	2	2	A	75656-S
					B	72155-S
					C	75656-S
					D	75656-S
					E	72155-S
					F	79024-S ■
IO-540-A1A5, -B1A5, -B1C5 (Standard Cyl. Flange), -E1A5, -E1B5, -G1A5, -G1B5, -G1D5, -G1E5, -G1F5, -P1A5	0.38	9.6	2	2	A	72062-S
					B	72062-S
					C	72062-S
					D	72062-S
					E	72061-S
					F	72074-S ■
	0.44	11.11	2	2	A	75656-S
					B	75656-S
					C	75656-S
					D	75656-S
					E	72155-S
					F	79024-S ■

Table 1 (Cont.)
Bushing Locations by Engine Model

Lycoming Engine Models	Flange Thickness		Type	Fig. Ref.	Bushing Location on Figure	
	in.	mm.			Installation Location	Bushing P/N
IO-540-AG1A5, -K1F5D, -K1J5D, -M1A5, -M1C5; **TIO-540**-A2A, -A2B, -A2C, -F2BD, -J2B, -J2BD, -N2BD, -R2AD, -V2AD; **LTIO-540**-F2BD, -J2B, -J2BD, -N2BD, -R2AD, -V2AD **TEO-540**-A1A, -C1A	0.44	11.11	2	2	A	75656-S
					B	75656-S
					C	72155-S
					D	75656-S
					E	75656-S
					F	79024-S ■
IO-540-AA1A5, -K1C5, -K1F5, -K1J5, -S1A5; **TIO-540**-U2A, -W2A, -AE2A; **LTIO-540**-U2A	0.44	11.11	2	2	A	75656-S
					B	75656-S
					C	75656-S
					D	75656-S
					E	72155-S
					F	79024-S ■
IO-540-M2A5D	0.44	11.11	2	2	A	72155-S
					B	72155-S
					C	72155-S
					D	72155-S
					E	72155-S
					F	75657-S ■
IO-540-K2A5	0.44	11.11	2	2	A	72156-S
					B	72156-S
					C	75656-S
					D	72156-S
					E	72156-S
					F	75657-S ■
IO-540-N1A5, -N1A5D, -R1A5, -R1A5D	0.44	11.11	2	2	A	72155-S
					B	75656-S
					C	75656-S
					D	72155-S
					E	75656-S
					F	79024-S ■
IO-540-AC1A5; **TIO-540**-AJ1A	0.44	11.11	2	2	A	75656-S
					B	75656-S
					C	75656-S
					D	75656-S
					E	75656-S
					F	75657-S ■
TIO-540-S1AD	0.44	11.11	2	2	A	75656-S
					B	72155-S
					C	75656-S
					D	75656-S
					E	72155-S
					F	79024-S ■

Table 1 (Cont.)
Bushing Locations by Engine Model

Lycoming Engine Models	Flange Thickness		Type	Fig. Ref.	Bushing Location on Figure	
	in.	mm.			Installation Location	Bushing P/N
TIO-541-E1A4, -E1B4, -E1C4	0.44	11.11	2	2	A	72156-S
					B	72156-S
					C	72155-S
					D	72156-S
					E	72156-S
					F	73811-S ■
TIO-541-A1A; **AEIO-580**-B1A; **IO-580**-B1A	0.44	11.11	2	2	A	75656-S
					B	75656-S
					C	72155-S
					D	75656-S
					E	75656-S
					F	75657-S ■
IO-720-A1A, -A1B, -B1B, -B1BD, -C1B, -D1B, -D1BD, -D1C, -D1CD	0.44	11.11	2	2	A	72156-S
					B	72156-S
					C	72156-S
					D	72156-S
					E	72155-S
					F	73811-S ■

** - Not used if wooden propeller is installed

† - Re-indexed propeller bushings. Refer to the latest edition of Lycoming Service Instruction No. 1452.

Table 2
Bushing Part Numbers and Dimension

Bushing Part No.	Prop. Bolt Thread Size		Dimension A		Dimension B	
	in.	mm	in.	Mm	in.	mm
60814-S	3/8	9.53	0.6255-0.6260	15.8877-15.9004	0.95	24.13
72060-S	1/2	12.7	0.7818-0.7823	19.8577-19.8704	0.59	14.99
72061-S	1/2	12.7	0.7505-0.7510	19.0627-19.0754	0.59	14.99
72062-S	1/2	12.7	0.7505-0.7510	19.0627-19.0754	0.78	19.81
72063-S	7/16	11.11	0.6255-0.6260	15.8877-15.9004	0.90	22.86
72064-S	7/16	11.11	0.6255-0.6260	15.8877-15.9004	0.48	12.19
72065-S	7/16	11.11	0.6725-0.6730	17.0815-17.0942	0.90	22.86
72066-S	3/8	9.53	0.6725-0.6730	17.0815-17.0942	1.02	25.91
72067-S	3/8	9.53	0.6255-0.6260	15.8877-15.9004	1.02	25.91
72074-S	1/2	12.7	0.7818-0.7823	19.8577-19.8704	0.78	19.81
72155-S	1/2	12.7	0.7505-0.7510	19.0627-19.0754	0.65	16.51

Table 2 (Cont.)
Bushing Part Numbers and Dimension

Bushing Part No.	Prop. Bolt Thread Size		Dimension A		Dimension B	
	in.	mm	in.	Mm	in.	mm
72156-S	1/2	12.7	0.7505-0.7510	19.0627-19.0754	0.97	24.64
73757-S	3/8	9.53	0.6725-0.6730	17.0815-17.0942	0.95	24.13
73811-S	1/2	12.7	0.7818-0.7823	19.8577-19.8704	0.97	24.64
74248-S	1/2	12.7	0.7818-0.7823	19.8577-19.8704	0.98	24.89
74249-S	1/2	12.7	0.7505-0.7510	19.0627-19.0754	0.98	24.89
75560-S	1/2	12.7	0.7818-0.7823	19.8577-19.8704	1.63	41.40
75561-S	1/2	12.7	0.7505-0.7510	19.0627-19.0754	1.63	41.40
75656-S	1/2	12.7	0.7505-0.7510	19.0627-19.0754	0.84	21.33
75657-S	1/2	12.7	0.7818-0.7823	19.8577-19.8704	0.65	16.51
79024-S	1/2	12.7	0.7818-0.7823	19.8577-19.8704	0.84	21.33
LW-18815-S	7/16	11.11	0.6255-0.6260	15.8877-15.9004	1.01	25.65
LW-18816-S	7/16	11.11	0.6255-0.6260	15.8877-15.9004	0.59	14.99
LW-18817-S	7/16	11.11	0.6725-0.6730	17.0815-17.0942	1.01	25.65
LW-18818-S	1/2	12.7	0.7818-0.7823	19.8577-19.8704	1.04	26.41
LW-18819-S	1/2	12.7	0.7505-0.7510	19.0627-19.0754	1.04	26.41
LW-18921-S	3/8	9.53	0.6725-0.6730	17.0815-17.0942	1.13	28.70
LW-18922-S	3/8	9.53	0.6255-0.6260	15.8877-15.9004	1.13	28.70
01K21699-S	1/2	12.7	0.7818-0.7823	19.8577-19.8704	1.69	42.92
01K21700-S	1/2	12.7	0.7505-0.7510	19.0627-19.0754	1.69	42.92
01K22155-S	3/8	9.53	0.7505-0.7510	19.0627-19.0754	1.19	30.22
01K22156-S	3/8	9.53	0.7818-0.7823	19.8577-19.8704	1.19	30.22
NOTICE: Tool No. ST-115 is used to remove and replace all propeller flange bushings.						

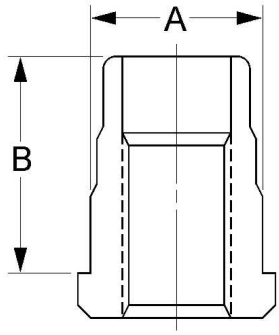

Figure 3
Bushing Dimensions A and B

NOTICE: Service replacements for all flange bushings are available in the following oversizes.

P05	P10	P15	P20
.005 in	.010 in.	.015 in.	.020 in.

Crankshaft Mounting Flange Measurements Checklist

Engine Model	Date	Crankshaft Flange P/N

Parameter to Measure	Measurement	Corrective Action
Thickness of the crankshaft mounting flange		
Diameter of each bushing hole on the crankshaft mounting flange		
Depth of each bushing hole on the crankshaft mounting flange (could be equal or not equal to the thickness of the flange)		

Propeller Flange Bushing Measurements Checklist

Installation Location	Propeller Flange Bushing P/N	Outside Diameter of the Bushing (Dimension A Figure 3) Refer to Table 2	Height of the Bushing (Dimension B Figure 3) Refer to Table 2	Corrective Action
A				
B				
C				
D				
E				
F				