Ship/HULL NO.	Ship/HULL NAME	JON:	ICN:	Rev:	Key Op:
	DIVE BOAT		89ZAA85007		A01

TITLE:

Propulsion Shaft and Stuffing Box BKT; replace

JOB SPECIFICATION

Anticipated Award Date:	Production Completion Date:	PREPARING ACTIVITY:
6/30/2026	10/30/2026	SASEBO
POP Start Date: 7/30/2026	POP End Date: 12/30/2026	

PREPARED BY: T.MITSUTAKE		CODE M_MI	DATE 3/25/2026
APPROVED BY: S.MURAKAMI	SM	CODE S225	
CONCURRED BY: N.SASHI		CODE S232	
ASSIST PLANNER'S NAME:		CODE	
ASSIST PLANNER'S NAME:		CODE	
ASSIST PLANNER'S NAME:		CODE	

WORK TO BE DONE IN DRYDOCK

DESCRIPTION:

JSN(S): CASREP #

S/F CONTACT: CWP # CCNS #

Approved by S300/S900 T. ESCRITOR-YAMADA PM S320 Date: 4/1/2026 AVL: 6A1

LWC:

Work Completed

S/Force: Rate: Date:

Ship Supt: Date: SRF CONTROL NO.: 1301370704

WORK CERTIFICATION SIGNATURES

COMPLETION OF WORK REVIEW:	BADGE NO.:	SHOP/CODE:	PHONE:	DATE:

Ship/HULL NO.	Ship/HULL NAME	JON:	ICN:	Rev:	Key Op:
	DIVE BOAT		89ZAA85007		A01

TITLE:

Propulsion Shaft and Stuffing Box BKT; replace

1. **SCOPE:**

1.1 Title: Propulsion Shaft and Stuffing Box Bracket; replace

1.2 Location of Work:

1.2.1 Under Hull

1.2.2 Machinery Room (2-12-0-E)

1.3 Identification:

1.3.1 Quantity (2 EA), PORT and Starboard Propulsion Propeller Shaft located in 1.2.1 and 1.2.2, Length: 6FT-4.875 Inch, Dia: 2 Inch, Shape: Double tapers, Material: CRES, Item No.P3 of 2.2

1.3.1.1 Quantity (2 EA), Companion Coupling for 1.3.1 located in 1.2.2, Material: C.Steel, Item No.P24 of 2.2

1.3.1.2 Quantity (4 EA), Key for 1.3.1 located in 1.2.1 and 1.2.2, Material: CRES, Item No.P13 and P14 of 2.2

1.3.1.3 Quantity (2 EA), Taper Pin for 1.3.1 located in 1.2.2, Shape: Detail 4-F of 2.2, Material: Steel, Item No.P27 of 2.2

1.3.2 Quantity (2 EA), Strut bearing for 1.3.1 located in 1.2.1, Dimension: 2 Inch ID by 3 Inch OD by 8 Inch LG, Type: Johnson Brand Cutless(Cutlass) Bearing CALM, Item No.P5 of 2.2

1.3.3 Quantity (4 EA), Bracket for Stuffing Box of Propulsion Propeller Shaft located in 1.2.2, Material: ASTM A-131, Item No.P25 of 2.2

1.3.4 Quantity (2 EA), Propeller located in 1.2.1, Dimension: 24 Inch OD, Item No.P1 and P2 of 2.2

2. **REFERENCES:**

2.1 Standard Items (FY26)

2.2 243-6627995, Propulsion Shafting Arrangement and Details

2.3 201-6627994 Rev A, Machinery Arrangement and Details

2.4 114-6627990 Rev A, Skegs and Struts

2.5 111-6577273 Rev B, Structural Modification for Dive Boat Conversion

2.6 561-6627996, Rudder, Stock and Steering Arrangement and Details

3. REQUIREMENTS:

3.1 Measure and record each clearance between stern tube and existing propulsion shaft.

3.2 Remove each existing and install new propulsion shaft and component listed in 1.3.1 through 1.3.3 installing each packing, using 2.2 through 2.6 and ENCLOSURE (A) for guidance.

3.2.1 Remove and install each propeller listed in 1.3.4 for replacement of each propulsion shaft.

3.2.2 Clean each part exposed by disassembly and removals free of oil and foreign matter leaving no residue or injurious effects.

3.2.3 Inspect each part not specified for renewal for wear and defect.

3.2.4 Remove each existing and install new component in place of those identified to be missing or defective.

3.2.5 Remove each high spot, burr, abrasion, nick, corrosion, gasket material, and foreign matter from each flange and matting surface.

3.2.6 Remove each burr and high spot from each sliding surface, screw thread, key, and keyway.

3.2.7 Chase and tap each exposed threaded area.

3.2.8 Template, drill and ream each hole from marine gear flange to companion coupling listed in 1.3.1.1 for installation of each reamer bolt in accordance with Note 4 of 2.2, using Detail 5-F of 2.2 and 2.3 for guidance.

3.2.8.1 Measure and record each ream hole.

3.2.9 Fabricate and fit each reamer bolt, using 2.2 and 2.3 for guidance.

3.2.10 Drill and ream each propulsion shaft and companion coupling listed in 1.3.1 and 1.3.1.1 for installation of each taper pin, using Section 6-F and Detail 8-F of 2.2 for guidance.

3.2.11 Fabricate and install each taper pin listed in 1.3.1.3, using Detail 4-F of 2.2 for guidance.

3.2.12 Tighten the packing gland nuts carefully, and maintain a small amount of leakage past the packing to provide lubrication and remove the heat generated by the friction between each packing and shaft.

3.2.13 Remove and install each stuffing box bracket listed in 1.3.3, using 2.2 and ENCLOSURE (B) for guidance.

3.2.13.1 Fabricate each new bracket.

3.2.13.2 Accomplish the requirements of **009-012** of 2.1, including Table 4, Column A, Lines One through 7 for welding. (Note 4.3)

3.2.14 Accomplish the requirements of **009-025** of 2.1 for local water hose test for each hose of stuffing box (P8 of 2.2) to ensure tightness. Allowable leakage: None.

3.2.15 Measure and record each alignment of propulsion shaft in accordance with note 5 of 2.2.

3.2.16 Measure and record each final clearance between stern tube and new propulsion shaft.

(V) "REPORT"

3.3 Submit one legible copy of a report listing results of the requirements of 3.1, 3.2.8.1, 3.2.14 and 3.2.15 to SUPERVISOR.

3.4 Accomplish the requirement of **009-032** of 2.1 for each new and disturbed surface.

(V) (G) "OPERATIONAL TEST"

3.5 Accomplish an operational test of each propulsion shaft listed in 1.3.1 conducted by DIVE LOCKER during sea trial in Sasebo-bay until correct operation is verified. **-S130, DIVE LOCKER**

3.5.1 Verify each disturbed joint free of leaks except stuffing box shaft seal.

3.5.2 Ensure no unusual leaks from each stuffing box shaft seal other than normal leaks.

3.5.3 Ensure no unusual vibration other than normal vibration.

4. NOTES:

4.1 Initial Condition - Replace both engine propeller shafts and re-welding both PORT & STBD bracket for stuffing box for shaft.

4.2 SRF Tool Room will issue pressure gages, dial indicators, and torque wrenches when required.

4.3 Cleaning of the area to a gas/oil free condition (by marine chemist) and preservation for underwater hull will be performed by 89ZAA85005-A01, and bilge cleaning and preservation will be performed by 89ZAA85008-A01.

4.4 S245 concurred to use Johnson Brand for Strut bearing listed in 1.3.2 instead of Goodrich Knave, under S245 official response to DIVE BOAT-0015.

4.5 ENCLOSURE (A) has been issued as removal guidance for the propulsion shaft, under S245 official response to DIVE BOAT-0016.

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5. GOVERNMENT FURNISHED MATERIAL (GFM):

5.1 SRF will provide each following material.

MATERIAL LIST

ITEM NO.	PC NO.	REF NO.	M / C	DESCRIPTION	STOCK NUMBER	HAZ MAT	DOC NO.	QTY REQD/ UNIT	Para No.
001	P3	2.2	M	PROPELLER SHAFT, DOUBLE TAPER WITH TWO SPOONED KEYWAYS, AQUAMET 17 DN, 2" X 6' 4-7/8", ITEM P3 OF DWG# 6627995, CRES	9B 2010	N		2/EA	3.2
002	P24	2.2	M	COMPANION COUPLING WITH TAPER, ITEM P24 OF DWG# 6627995, ASTM A-27 GR 60-30	9B 2010	N		2/EA	3.2
003	P10, 11, 13, 14 and 15	2.2	M	HARDWARE INCLUDING KEYS, NUTS AND COTTER PIN, P10, 11, 13 AND 14 OF DWG# 6627995	9B 2010	N		2/EA	3.2
004	P5	2.2	M	STRUT BEARING, JOHNSON BRAND CUTLESS (CUTLASS) BEARING, CUTLESS BEARING CALM, 2" SHAFT X 3" OD X 8" LONG, METALLIC NAVAL BRASS FOR PROPELLER, P5 OF DWG6627995	9B 3110	N		2/EA	3.2
005	P7	2.2	M	PACKING MATERIAL, P7 OF DWG6627995	9B 5330 013898701	N		10/FT	3.2
006	P8	2.2	C	HOSE,NONMETALLIC, COLUMIAN FIG 182, HOSE 40 D X 3.5 ID X 6-1/2 REIN, P8 OF DWG6627995	9B 4720 011659537	N		2/EA	3.2
007	P12	2.2	C	FLAT WASHER, 2-3/4 OD X 1-11/16 ID X 3/16, 316L, P12 OF DWG6627995	9B 5310	N		2/EA	3.2
008	P16	2.2	M	HEX BOLT, 3/4 - 10 UNC - 2A X 6-1/2, 316L, P16 OF DWG6627995	9B 5310	N		4/EA	3.2
009	P17	2.2	M	HEX NUT, 3/4-10UNC-2B, 316L, SLOTTED TYPE, P17 OF DWG6627995 (FOR P16)	9B 5310	N		4/EA	3.2
010	P18	2.2	M	FLAT WASHER, 3/4, 316L, P18 OF DWG6627995 (FOR P16 & P17)	9B 5310	N		8/EA	3.2
011	P19	2.2	M	COTTER PIN, 1/8 D X 2, 316L, P19 OF DWG6627995 (FOR P16 & P17)	9B 5315	N		4/EA	3.2
012	P20	2.2	M	SET SCREW HEX, 3/8-16 UNC X 1/2, 316L, P20 OF DWG6627995 (FOR STRUT BEARING)	9B 5310	N		4/EA	3.2
013	P27	2.2	M	BAR,METAL, 1.1875", AISI 1020 (ASTM A108 GR1020), P27 OF DWG6627995 (FOR FABRICATE TAPER PIN)	9B 9510 002566271	N		4/FT	3.2
014	P28	2.2	M	NUT,SELF-LOCKING,HEX, P28 OF DWG6627995	9B 5310 011523028	N		2/EA	3.2
015	P29	2.2	M	WASHER,FLAT, 3/8" ID, P29 OF DWG6627995 (FOR P28))	9B 5310 000877493	N		1/HD	3.2
016	P25	2.2	M	FLAT BAR, 1-1/4" W X 3 FT X 1/4" TH, ASTM A-131, P25 OF DWG6627995	9B 9510	N		3/FT	3.2
017	M8	2.3	M	NUT,SELF-LOCKING,HEX, 3/4-16 UNF-2B, SELF LOCK, P8 OF DWG6627994	9B 5310 000802289	N		12/EA	3.2

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MATERIAL LIST

ITEM NO.	PC NO.	REF NO.	M / C	DESCRIPTION	STOCK NUMBER	HAZ MAT	DOC NO.	QTY REQD/ UNIT	Para No.
018	M11	2.3	M	WASHER,LOCK, M11 OF DWG6627994 (FOR M8)	9B 5310 013396531	N		1/HD	3.2
019	M7	2.3	M	HEX BOLT,PN 91247A508, 7/8-14 UNF-2A X 3-1/2", SAE GR 5, FOR FABRICATION REAMER BOLT, M7 OF DWG6627994	9B 5305	N		12/EA	3.2

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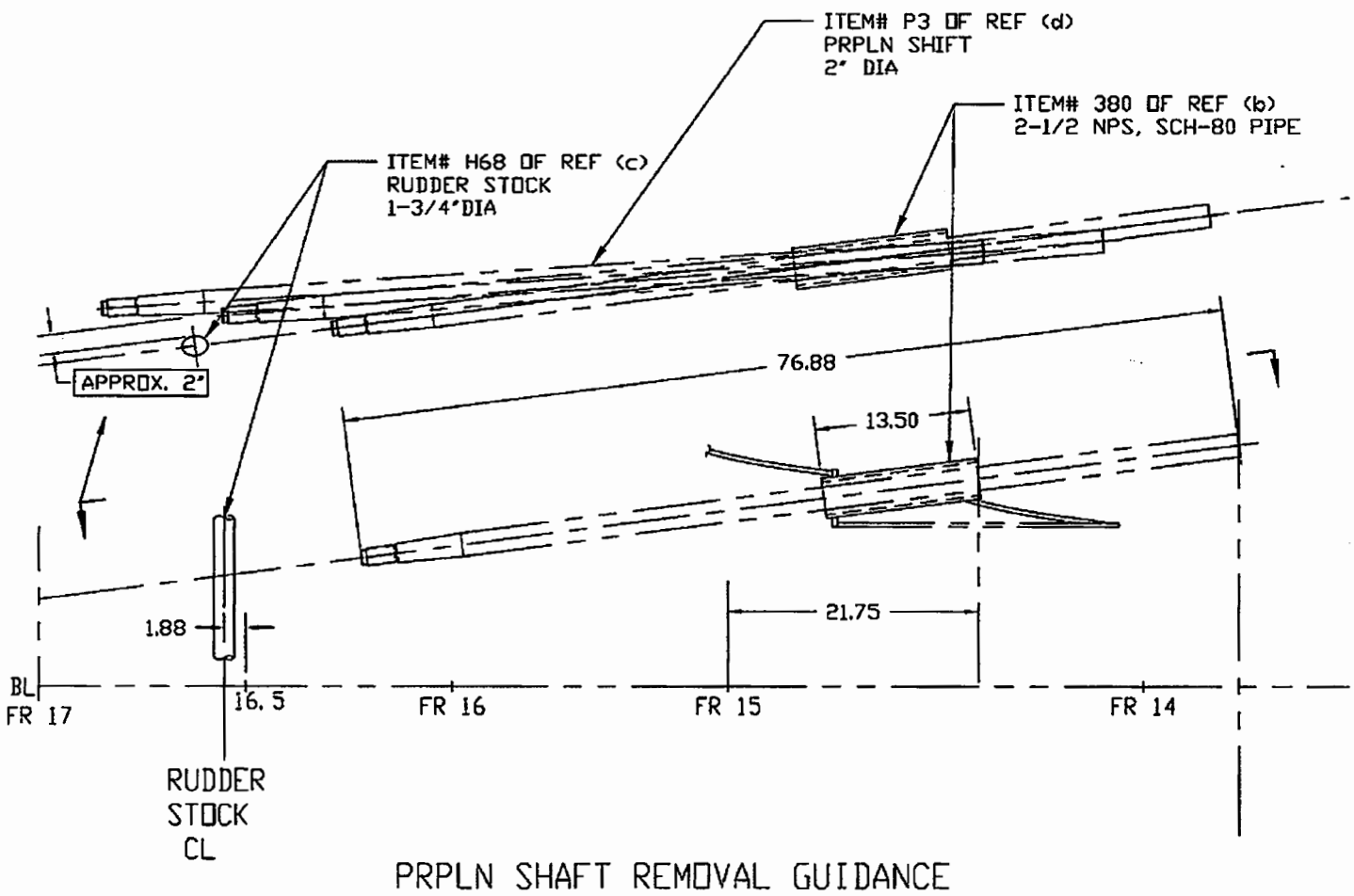
CUI//SP-CTI/FEDCON



PRPLN SHAFT REMOVAL GUIDANCE

CUI//SP-CTI/FEDCON

ESR DIVE-BOAT-0016	SCALE	SHEET
ENCLOSURE-(1)	NONE	1 OF 1

ENCLOSURE (A) 1/1

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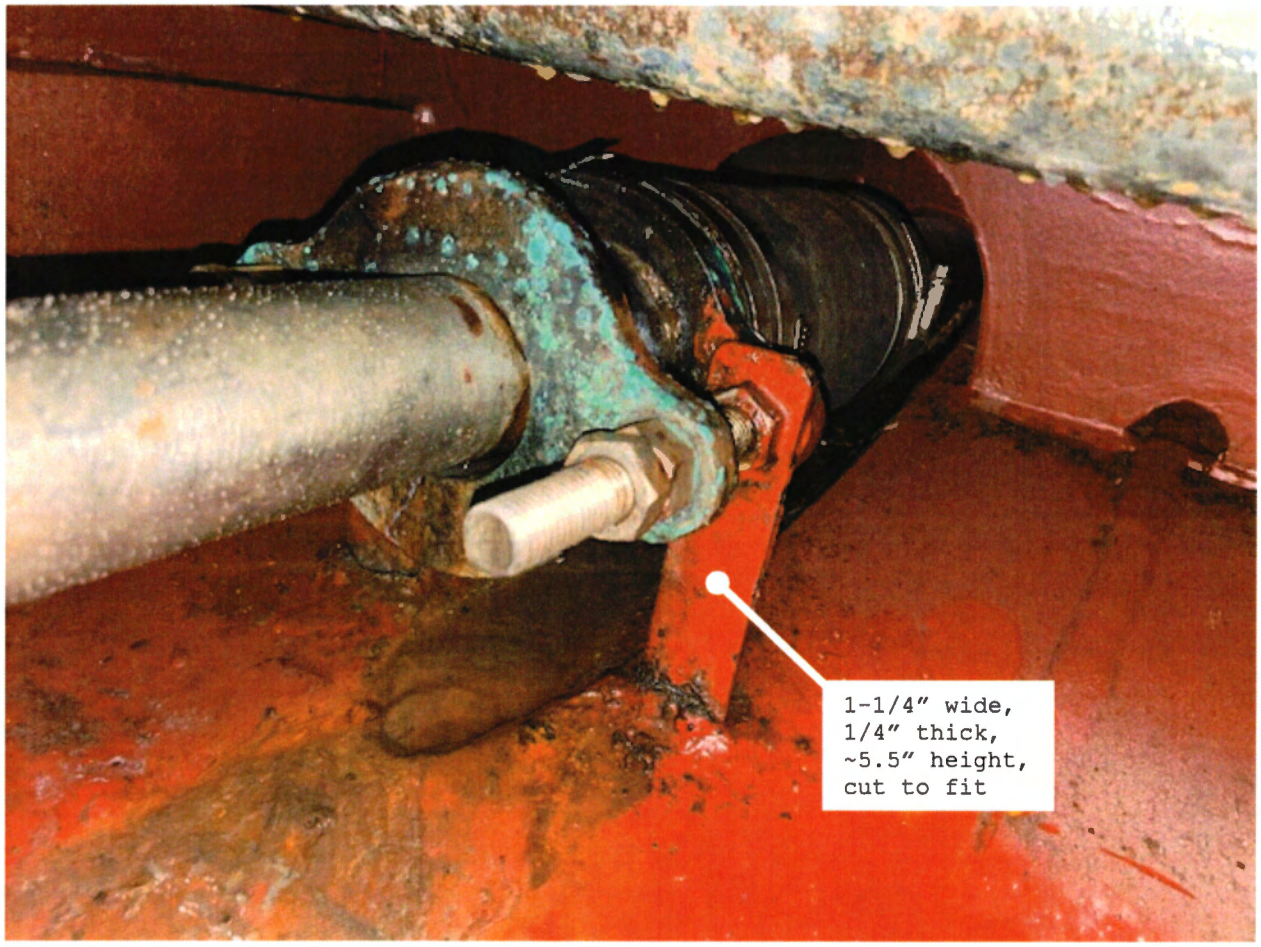

ENCLOSURE (B) 1/1