# **TECHNICAL REPORT**

TITLE:

PROPOSED CORRECTIVE ACTION FOR DEFECT FLOAT

**REPORT NO:** 

DPSB/ENG/TR/07-23/07

#### **REFERENCES:**

A. DPSB Item Discrepancy Report DPP-A-05B dated 27th Dec 2022

B. Component Maintenance Manual 25-69-40 Rev 12 Page 601

# INTRODUCTION:

Destini Prima Sdn Bhd (DPSB) receives 1 unit LH Float Assy and 1 unit RH Float Assy. These Float Assy owned by Royal Malaysian Navy (RMN) and installed on the AS555 SN Fennec Helicopter.

# **PURPOSE OF FLOATATION SYSTEM:**

Emergency Flotation Systems (EFS) are emergency systems installed on helicopters in order to prevent the airframe sinking in the event of a crash landing on water.

#### FINDINGS:

During receiving inspection by Authorized Trade Person (ATP), there is torn with 122cm horizontal and 82cm vertical long found on LH Float.

Besides that, RH Float was found cannot hold pressure during manual inflation process conduct by ATP.

Moreover, Manual Inflating Deflating Valve was found defect and the cap of the valve was found missing for both LH and RH Float.

# PROPOSED SOLUTION:

·	Comparison Details for Servicing					
Description	Service at DPSB with float replacement	Send to OEM with float replacement	Send to OEM without float replacement			
L/H Float Assy Part Number	218593-0					
R/H Float Assy Part Number	218594-0					
Man hours for servicing of each float	RM 11,000.00 (Include all man hours)	RM 10,038.00 (Do not include major repairs)	RM 10,038.00 (Do not include major repairs)			
Estimate servicing cost including L/H float replacement (P/N: 218569-0)	RM 125,082.85	RM 101,156.28	N/A			
Estimate servicing cost including R/H float replacement (P/N: 218570-0)	RM 125, 543.00	RM 100,724.40	N/A			
Total estimate servicing cost	RM 250,625.85	RM 201,880.68	RM 20,076.00			
Remark	Price include all cost.	Price does not include freight cost, major repairs and replacement of parts damaged.	Price does not include freight cost, major repairs and replacement of parts damaged.			

Table 1: Comparison Details for Servicing

### TECHNICAL REPORT

Prepared by:

Position: Date:

Refer Table 1, total estimate cost for both Float Assy will be RM 250,625.85 if the servicing process is done at DPSB facility. This price includes replacing the defect float with new condition of float from OEM and include man hours for testing and assembly the Float Assy.

Nevertheless, if the defect float sent to Original Equipment Manufacturer (OEM) and scrapped by OEM, the estimate total cost for both floats will be RM 201,880.68 which does not include freight cost, major repairs and replacement of parts damaged. Actual price can only be concluded when the Float Assy received and inspect by OEM.

In the case of defect Float Assy sent to OEM without float replacement, the total estimate cost for both Float Assy will be RM 20,076.00. This price does not include freight cost, major repairs and replacement of parts damaged or missing. Actual price can only be concluded when the Float Assy received and inspect by OEM.

# **CONCLUSION AND RECOMMENDATION:**

In the case of defect float send to OEM, actual price will be higher than estimate cost. Customer also will need to bear the cost of sending the float to OEM together with the price of replacement of new float if the defect float scrapped by OEM.

In Addition, floats have 10 years life limitations. Both floats will due for life end by May/June 2026 which having another 3 years in service.

Looking at the degree of defect found on the floats, these floats might be leads to scrap. Furthermore, the life balance for the floats will only have 3 years. Therefore, we recommend to replace the defect float without sending the float to OEM.

Vetted by

Noor Farahana Binti Zinon
Assistant Manager Technical Services
Destini Prima Sdn Bhd
Date: 22 June 2023

CUSTOMER REMARK:
We AGREE / DISAGREE to the recommendation

Maj Zaja Bin Wahab (Retired)
Senjor Vice President, Operation
Destini Prima Sdn Bhd
Date: W6/13

CUSTOMER REMARK:
We AGREE / DISAGREE to the recommendation

# DESTINI

Stamp and Initial:

# ITEM DISCREPANCY / DEFECT

	REF	ERE	NC	E	A
DPP-A					

DR Control No.: SAR/DR/22/31 REPORT I:3 R:3 PR:1 DTD: 01 JUN 2020 PART A 1. Work Order No.: 3. Part No.: DPSB/GLM/SAR/22/147 & 148 218569-0 & 218570 2. Item Description: 4. Serial No.: L/H FLOAT & R/H FLOAT 2926 & 2907 X Physical, Visual and/or sound Inspection PHOTO (IF ANY) Type of insp. on item and NDT / X-ray / Ultra sound / Thermal imager accompanied document. Insufficient life until next maintenance cycle. Discrepancy/ Defect Found: Other: AS PER ATTACHMENT ( ANNO 1941) MUHAMMAD TIR PAUS BIN YUSOF AVIation Technician Safety\_\_\_\_\_\_\_SAR Glenmarie 2 7 DEC 2022 Name/ Stamp of Authorized or Date: Competent Staff and Initial: PART B Operational/ Usage Error Servicing Error Improper Packaging Probable Cause: Normal Wear & Tear Handling/ Transportation Other Degree or ✓ Major Defect Minor Defect Deficient Life to Next Cycle 2. Category of Other: Defect: Proceed Maint, without Repair Return - Nil Capability Scrap & Replace Propose Repair as Proposed Quarantine until Final Decision Calibration 3. Corrective Action: Outsource Repair to ASN ★ Other: 4. Other Comments/ Remarks: 2 7 DEC 2022 AND BINSHIAT KARIM HO Entity/MM/WMS/QAP. Name/ Date: Assl. Mageger / Maint. Manager Stamp and Initial: PART C: CUSTOMER/ CUSTOMER REPRESENTATION 1. Decision by Customer/ Customer Representative: Return without Repair X Agreed and Proceed Repair Proceed Work without Repair. X Sent to OEM/ Approved Support Network for Overhaul and Repair Other: 2. Additional Remarks by Customer/ Customer Representative: Please procced repair from OEM -Customer Representative, Name/ Stamp and Initial: Mohd Sumail Sulaiman Logistic & Procurement Contri PART D: RESPECTIVE DPSB WORKSHOP Part's Replacement Repair as per Manual 1. Corrective action as per Adjust Approved Control Component Replacement Temporary Repair as per ACD Calibrate Document (ACD): Extend life with DAR / OEM /AEO / Customer approval QAP/WMS/MM/SMM. Name/ Stamp and Initial: PART E: RSQAD 1. Receive Date: 3. Any Specific Alert or Alarming Trend? 2. Data Key in Date: Yes - Ack. QASM on : RSQAD Engineer/ Executive. Name/ Date:

# TDI REPORT

1. Item Pt No:

218569-0

Description:

LH FLOAT BALOON

S/No:

2926

# Finding:

1.1 The baloon was torn up to 122CM Horizontal and 82CM Vertical.

1.2 Pressure Pick Off Adaptor - missing

1.3 Cap for Pressure Pick Off Adaptor - missing

2. Item Pt No:

218570-0

Description:

RH FLOAT BALOON

S/No:

2907

# Finding:

1.1 Pressure Pick Off Adaptor - missing

1.2 Cap for Pressure Pick Off Adaptor - missing

# Recommendation:

Item are recommended for OEM repair or replace new, this is due to beyond DPSB 's in house capability.

TAJUL ARIFIN 8 MOHD YUSOP

Manager

# **ZODIAC AEROSAFETY SYSTEMS**

# COMPONENT MAINTENANCE MANUAL EMERGENCY FLOTATION SYSTEM WITH PROTECTION FOR FAST ROPING/ HOIST

### REPAIR

#### 1. General

- Every repair must be noted on the corresponding log-card.
- Replace parts that are damaged beyond the repair limits.
- See Section "SPECIAL TOOLS, FIXTURES AND EQUIPMENT MATERIALS"

### 2. Repair of floats

# A. Type of repair

Depending on the type of defect in the fabric of a damaged float, there are four possible repair procedures.

- (1). For tears less than 30 mm long and punctures, the repair may be carried out in a normal workshop, using the repair kit components.
- (2). For minor defects (as local abrasion, permanent stain...) which not involve the fabric structure integrity (i.e. non-presence of tear or puncture), the repair may be carried out in a normal workshop, using the repair kit components. Repair is a simple overlap patching. Use a round patch on the outer fabric surface only.
- (3). For tears more than 30 mm long, the repair should be carried out in an authorized repair station or by Zodiac Aerospace Services.

NOTE: Authorized repair station can be found on Zodiac Aerospace Services web site: <a href="http://www.services.zodiacaerospace.com">http://www.services.zodiacaerospace.com</a>.

(4). Unbonding (refer to the relevant paragraph).

#### B. Adhesives

## (1). Use

- Types of repair as above para A.(2) and A.(4): the AD16 referenced adhesive (as one part adhesive without hardener) must be used.
- Types of repair as above para A.(1) and A.(3): the AD13 referenced adhesive (as two parts adhesive-cement / accelerator hardener) must be used.

# (2). Preparation

See the label which is fixed on the container of the adhesive.