



STILWELL FLYER OPERATIONS MANUAL

2020 VERSION A

STILWELL FLYER OPERATIONS MANUAL - Version A

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PLEASE READ BEFORE USING.

SEI INDUSTRIES LTD.

7400 Wilson Avenue Delta, B.C. Canada V4G 1H3

Phone: (604) 946-3131 Fax: (604) 940-9566

E-Mail: seisales@sei-ind.com Website: www.sei-ind.com

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Section 1: Introduction

Overview

This manual provides helicopter operators with information on the operation and maintenance of the Stilwell Flyer portable water container.

The operation of the Stilwell Flyer can be quickly mastered by operators with no prior experience and the Stilwell Flyer requires no pre-assembly.

Once airborne, the operator can easily become familiar with the flight characteristics of the Stilwell Flyer. Several trips with a filled Stilwell Flyer will give the operator enough experience to handle the unit.

For your own protection and for longer tank life of the tank, please read this manual prior to flying the Stilwell Flyer to familiarize yourself with filling and positioning the unit. Ignoring any warnings in this manual could result in personal injury or damage to the Stilwell Flyer or the aircraft.



SEI Industries Ltd. offers a complete parts supply and repair facility for Stilwell Flyers. When ordering parts, please provide the model number of your Stilwell Flyer. Additional copies of this manual are available from SEI Industries or your local SEI dealer.

Specifications

Weight Specifications

Model	Capacity		Model Capacity Empty Weight		Filled Weight	
	USG	L	LB	KG	LB	KG
SWF6072	72	273	11	5	612	278
SWF1113	132	500	12.5	5.7	1115	506

Section 1: Introduction Specifications

Rigging Specifications

Description	Model SWF6072	Model SWF1113				
Top Lifting Ring						
Working Load Limit	-	1500 kg				
Min. Breaking Strength	5000 kg	7600 kg				
D-Rings (3)						
Min. Breaking Strength	2270 kg	2270 kg				
Webbing, 2" (50mm)						
Min. Breaking Strength	5450 kg	5450 kg				

Service Life

The Stilwell Flyer has a maximum service life of 10 years from the date of manufacture.

Section 2: Safety Precautions

Pre-Flight Safety Check

Warning

The Stilwell Flyer should not be flown empty. Remove the tank from the cargo hook and store inside the helicopter until it is filled.

Just as a pilot preflights an aircraft, the Stilwell Flyer should also receive a preflight inspection each day.

- Both the rigging and the containment portion of the Stilwell should be examined for abrasive wear and damage prior to flight and be removed from service if wear or damage is observed or if there are any other conditions that cause doubt as to its continued use.
- 2. Check to see if the filler cap is secured to the flange.
- 3. Ensure that the lifting ring is securely attached to the helicopter cargo hook.

Important Note

Damage to the containment portion of the Stilwell Flyer may be repaired with fabric patches applied with glue or hot air welding. Refer to the Section 5 of this manual or SEI's Product Repair Manual for details.

Section 3: Filling and Discharge Operations

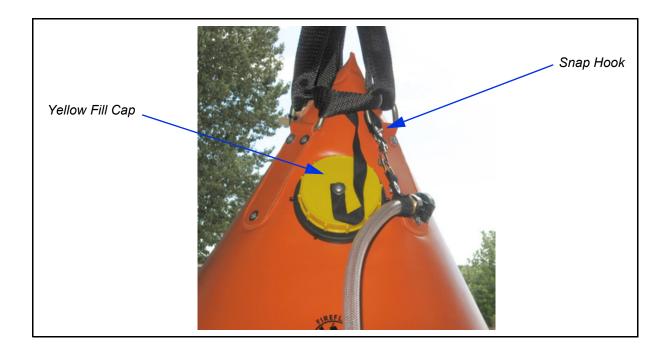
Filling Procedure

Caution

It is recommended that you use a metered pump to fill the Stilwell Flyer as this is the only way to know that what you have pumped into the Stilwell Flyer can be carried by the helicopter being used. If there is a discrepancy between the stated capacity and the actual capacity of the Stilwell Flyer, never overfill the Stilwell Flyer. The maximum weight capacity of the helicopter must never be exceeded.

The Stilwell Flyer can be filled through its yellow filler cap or the bottom drain hose.

- If you are filling from the yellow filler cap (top inlet), then this cap must be removed and the bottom valve closed.
- You can also choose to fill through the bottom drain hose (outlet hose assembly). In this case, fill the tank from the bottom until the water flows out the top flange.
- Now, close the bottom drain hose valve and replace the yellow cap.
- Attach the bottom drain hose to the top of the Stilwell using the snap hook provided.



Discharge Procedure

Once the Stilwell Flyer has been landed, the water can be discharged from the outlet hose assembly.

After directing the outlet hose assembly to the location where you wish to discharge, open the ball valve. There is no need to remove the fill cap.

The Stilwell Flyer should be flown in accordance with United States Forest Service recommendations for helicopters, other than tandem rotor, to a maximum 80 KIAS while conducting external cargo hook operations.

Important Note

It's recommended that helicopter speed be gained slowly as this allows you to determine a safe maximum speed for the prevailing conditions.

Section 4: Cleaning and Storage

Cleaning and Storage Instructions

It is recommended that you follow these guidelines to ensure the longevity of your Stilwell Flyer.

- When in storage, do not place heavy objects on the Stilwell Flyer as this can cause fabric failure from sharp objects, creases or punctures which may cause leaking.
- Wash the tank with a mild detergent and rinse prior to storing.
- Always dry the tank before storage to eliminate mildew or bacteria growth.

Drying can be accomplished by moving the tank to a warm dry area and filling it with air. Rotate the tank by hanging it from a D-ring with the drain hose at the low point. After approximately one hour, open the drain valve and drain the water, leaving it hanging until no sign of water is present. Fold the tank as per the instructions in Section 5 and place it in a dry storage area away from direct sunlight.

Section 5: Repairs

Temporary Repairs

Making Emergency/Temporary Repairs With Patches

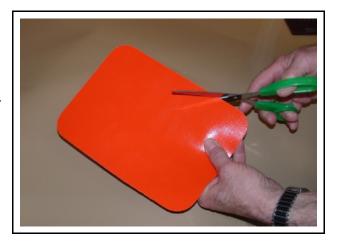
Before commencing repairs, the weather should be warm (above 60 deg. F or 15 deg. C) and dry. The patch should be weighed down for 8-12 hours and the repaired item should not be used before the glue has set (24 hours).

Tools and Materials Required

- Roller
- Scissors
- Patch material
- Glue
- Solvent
- Abrasive pad
- Weight bag (if ordered)

Step-By-Step Instructions

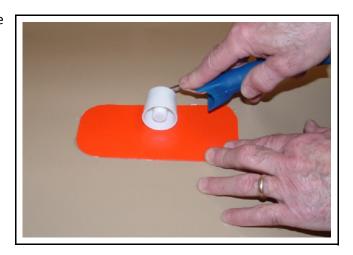
- Clean the area to be repaired with an abrasive pad dampened with solvent. Remove all traces of masking tape, if used. If possible, place a piece of masking tape on the back side of the item being repaired. Check to see if the area is totally clean and all coated surfaces/edges are dull.
- Cut a patch. The patch should be at least 2" (50 mm) larger in every direction from the damaged area.



Paint the damaged area with glue. WAIT 30 MINUTES (at 75 deg. F or 22 deg. C) for some of the solvent to evaporate from the glue. The glue should become thicker but still be quite wet.



Place the patch and roll it down with the roller. Place the centre of the patch down first, then roll it out towards the edges.



Weigh down the patch. Place a plastic cover sheet over the patch followed by a 10 lb. weight for 12 hours at room temperature. A weight bag (to be filled with water) can also be ordered by requesting part# REPB001 or, if you ordered a complete repair kit, then it will be part of that kit. Following repair, the item can be moved but should not be filled again until the glue has cured for 24 hours.

Warning

Glue vapours are highly explosive! Explosive vapours may occur causing fire and/or injury. Keep away from all sparks, flame, lighters or cigarettes. Use solvent and glue under well ventilated conditions only. When using a warm air fan, either use one which is rated EXPLOSION PROOF or make sure that there is a steady flow of air past the work area to remove fumes as they are generated.

Permanent Repairs

Making Permanent Repairs Using a Hot Air Gun

On most products, hot air gun patching is the preferred repair method because it provides the most durable, permanent repair possible.

Tools and Materials Required

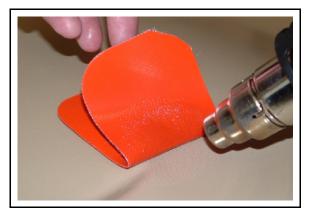
- Patches
- One plastic hand-held roller
- One hot air gun (1500 W, 800 to 1100 deg. F)
- One wide-surface nozzle
- Isopropyl alcohol
- Scissors

Step-By-Step Instructions

In a well-ventilated location, clean the area to be repaired as well as one side of the patch with an abrasive pad.



Mount a wide surface air nozzle on the hot air 2. gun so as to direct the heat flow in a large pattern. Turn the power on, adjust the temperature in the low range first and let the hot air gun warm up. Increase the temperature as required during the operation. DO NOT OVERHEAT OR BLACKEN THE FABRIC.



Starting from the centre of the patch (held down by the roller), concentrate the heat flow equally to patch and fabric. APPLY a light pressure with the roller when the fabric starts melting. This can be seen as small bubbles. DO NOT OVERHEAT.



Roll the patch down to fuse it to the fabric, moving roller and gun simultaneously. Repeat on the un-fused portion of the patch. Let the repaired area cool down. Attempt to peel off at the edges with your fingers. If there is even a slight peel, repeat the operation on that small area. Otherwise, the repair is finished.

Warning

It is extremely dangerous to use a hot air gun in the presence of flammable fumes such as gasoline or paint thinner. There is a high risk of explosion and/or burns. Injury, especially to hands and fingers, can also occur when using a hot air gun. Wear gloves to protect skin from overheating, burning and blistering.

Section 6: Folding Instructions

Folding Procedure

Lay the Stilwell Flyer flat on a solid surface with the yellow filler cap facing up towards you.



Fold the left side edge into the center. 2.



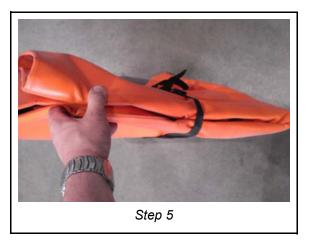
3. Now, fold the right edge into the center.



Fold from the bottom up so that yellow filler 4. cap is covered.



If desired, webbing or rope can be loosely tied around the folded Stilwell Flyer to prevent unfolding.



Section 7: Warranty

- a) Warranty is limited to repairing or replacing, at the company's sole discretion, any product approved to be defective.
- b) The company's products are not guaranteed for any specific length of time or measure of service, but are warranted only to be free from defects in workmanship and material for a period of one year to the original purchaser.
- c) To the extent allowable under applicable law, the company's liability for consequential, incidental and environmental damages is expressly disclaimed. The company's liability in all events is limited to, and shall not exceed, the purchase price paid.
- d) This warranty is granted to the original purchaser and does not extend to a subsequent purchaser or assignee.
- e) The company must receive notification in writing of any claims of warranty from the original purchaser which must give details of the claimed defect in the product.
- f) Where the original purchaser is claiming under warranty, the product must be returned to the company for inspection with all transportation and duty charges prepaid.
- g) The warranty does not extend to any product that has been accidentally damaged, abraded, altered, punctured, abused, misused or used for a purpose which has not been approved by the company.
- h) This warranty does not apply to any accessories used with the product such as pumps, filters, hoses, etc., that are not supplied by the company, and any warranty on such accessories must be requested from the manufacturer or dealer of the accessories.
- i) In the event the original purchaser does not give notice of a warranty claim within one year of the original purchase of the product, it is understood that the purchaser has waived the claim for warranty and the purchaser and/or any subsequent purchaser must accept the condition of the product as it may be, without warranty.
- i) Any technical information supplied by the company regarding the product is not a condition of warranty but rather is information provided by the company to the best of its knowledge.
- k) There are no implied warranties nor is there any warranty that can be assumed from any representation of any person, except the company itself.

Exclusions

This warranty is void if the product is not assembled, used and/or maintained in accordance with the operator's manual supplied by SEI. Not intended for use with liquids other than water.