



SERVICE LETTER SL42 56-10113 Rev C

Release Date: 12/27/2021

Service Letter No.: SL42 56-10113 Rev C.

Subject: Replacement of existing aluminum hinges with newer, stainless hinges.

Part/Assembly No.: 56-10113-SUPP

Float Model Affected: 5850

Corrective Action: Non-required.

Compliance: **Mandatory** **Recommended** **Optional**

Approval: All information provided is in accordance with approved data.

Cost to Customer: Credited No Charge Charged Warranty

Time Required: Allow 2 hours per door for installation.

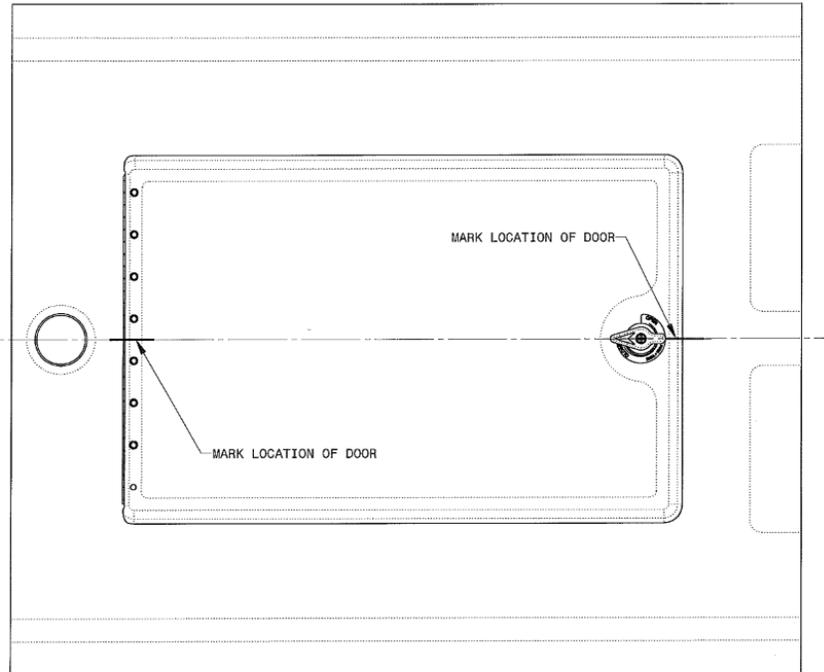
NOTES:

1. For all illustrations in this service letter refer to Drawing 56-10113 – SUPP.
2. Aerocet recommends one of two methods to accomplish the replacement of hinges:
 - a) Method 1: Reusing the existing door assemblies, replacing only the hinge.
 - b) Method 2: If available for purchase, replacing the entire door assembly. If using this method, then refer to Aerocet Drawing 56-10113- SUPP, Sheets 1, & 3 for installation.) Method 2 is made to order. Please contact Parts Department (208) 448-0400 for availability and lead times.
3. Instructions are organized for clarity into recommended major steps: Step 1, Step 2, etc.
4. Refer to A-10034 §3 (**Maintenance Manual and Instructions for Continued Airworthiness for Aerocet Model 5850 Twin Seaplane Floats Installed on a De Havilland DHC-2 Beaver Airplane** for all resin and cloth work. Observe all safety measures and use appropriate safety equipment. Fastener torque values are provided in §1.4.

STEP 1: PREPARATION

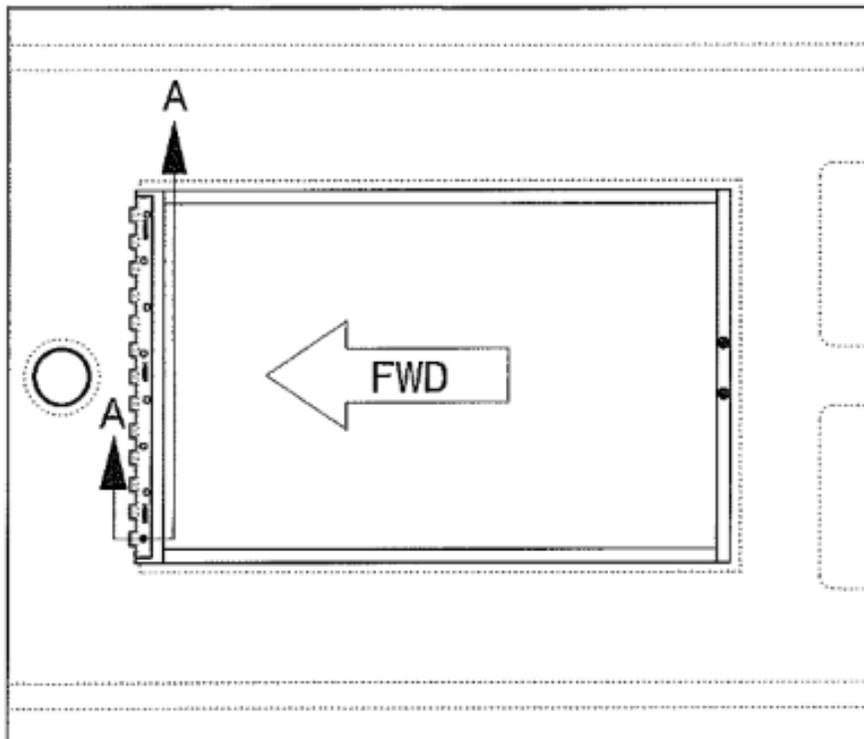
IMPORTANT: Door assembly latch pin must align with the slot in the catch, or it will not properly close. Alignment marking at this step is intended to assure this alignment.

- 1.1 Method 1: Mark door and float deck with a visible line, such as fine felt-tipped pen, which will re-locate the door in later steps. See Drawing 56-10113-SUPP Sheet 1.



- 1.2 Remove existing door assembly by removing hinge pin. Proceed to Step 2.
- 1.3 Method 2: Locate and mark the centerline for the float deck opening, and the centerline of the new door assembly, fore and aft with a fine, felt-tipped pen.

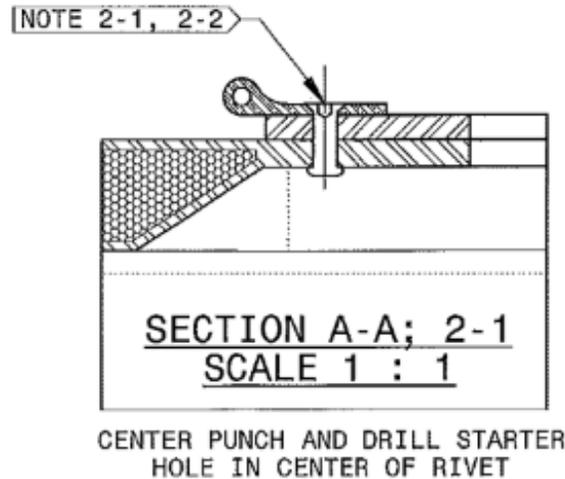
Remove existing door assembly by removing the hinge pin. The illustration below can be seen on Drawing 56-10113-SUPP Sheet 2. Proceed to Step 2.



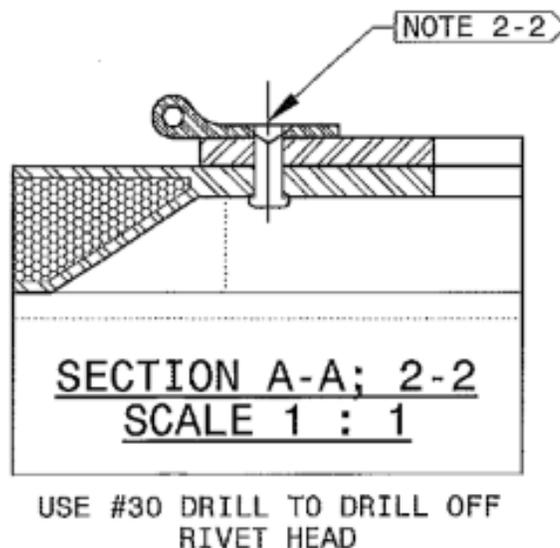
STEP 2: REMOVAL AND REPLACEMENT OF HINGE HALVES

NOTE: Method 1 applies to both hull and door hinge halves. Method 2 applies only to hull hinge half.

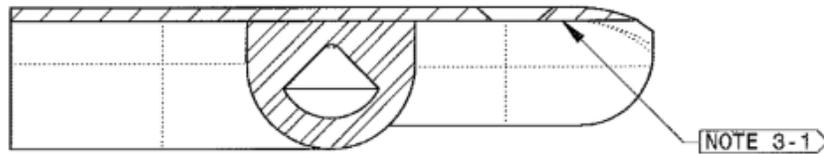
- 2.1 Use a center punch to create a divot in rivet heads, locating the center of each rivet head to be drilled for removal. The illustration below shows hull side hinge half. See Drawing 56-10113-SUPP Sheet 2.



- 2.2 Pilot drill rivet heads with #50 drill, then drill #30 ($\varnothing.1285$) just to a depth that will allow it to be removed with a blunt punch. (Typically, $\varnothing.125$ " is inserted into the #30 hole, and pried side to side to remove the head.) The illustration below shows hull side hinge half. See Drawing 56-10113-SUPP Sheet 2.



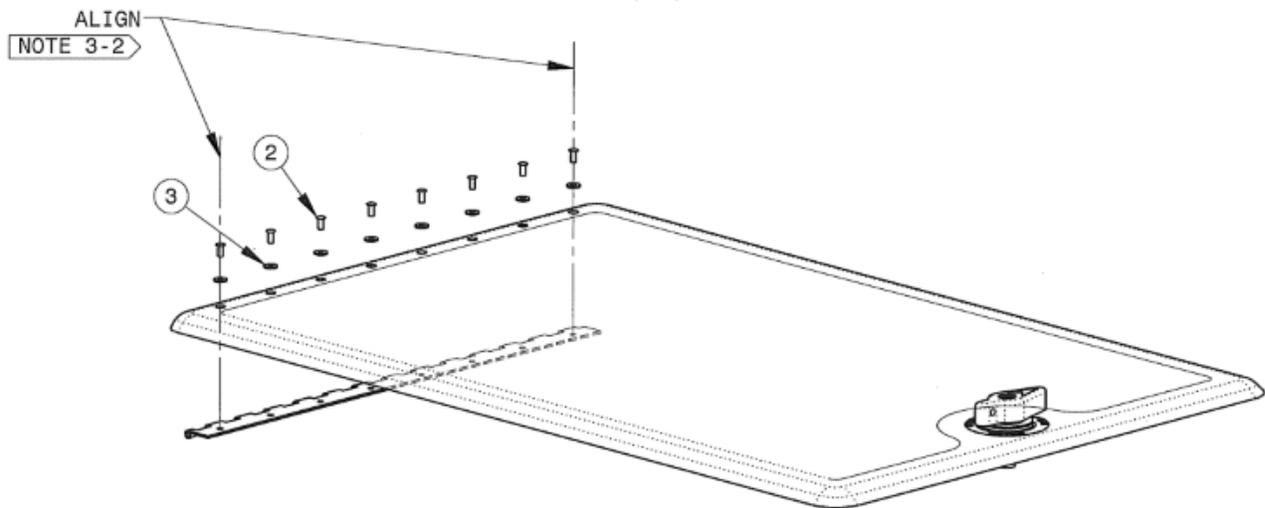
CAUTION: Avoid drilling too deeply as this may cause unnecessary damage to the door.



NOTE: The hinge halves are unique, fitting either the door side or the hull side. Hinge half on the hull side has a staggered hole placement and counter-sunk holes, while door assembly hinge half is all in line, and matches existing door assembly rivet holes.

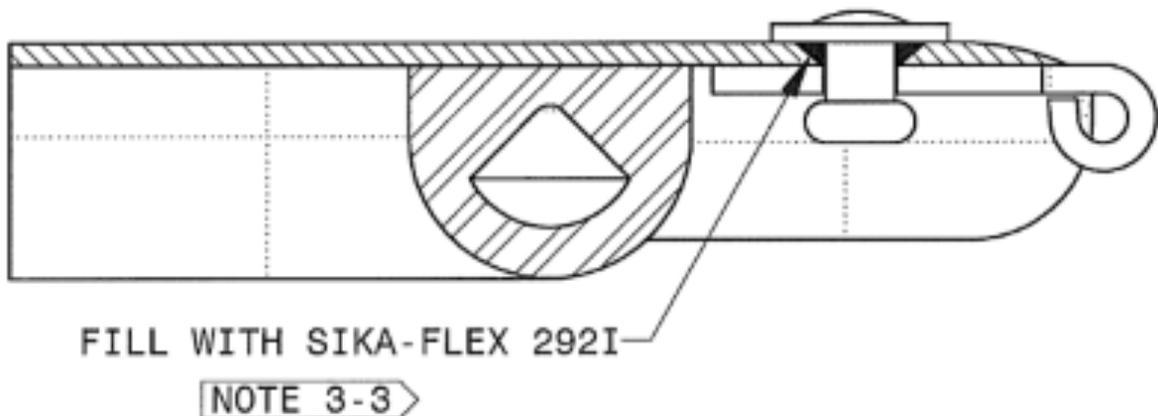
NOTE: Avoid applying sealant too near or within rivet holes as this will foul clecos and will create undue mess.

- 3.2 Locate and temporarily install hinge half to the door using several clecos, evenly spaced. Illustration below refer to Drawing 56-10113-SUPP Sheet 3.

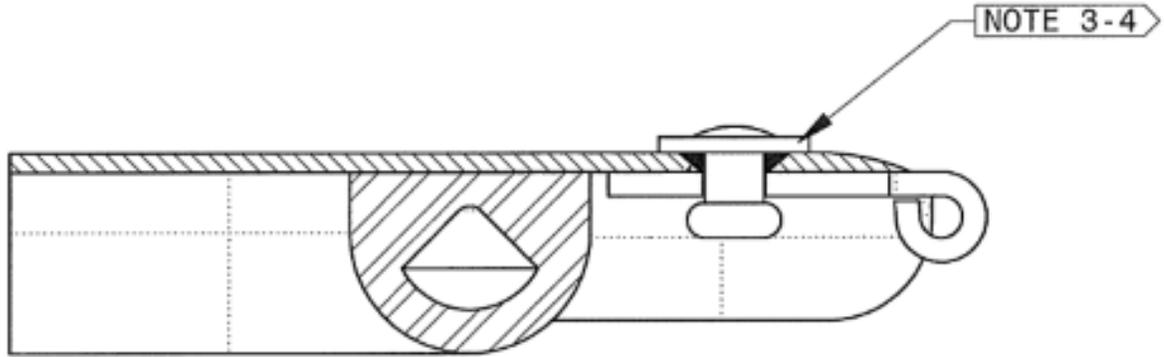


NOTE: The illustrations show the holes for the door but the same applies to the holes for the deck.

- 3.3 Apply sealant into open counter-sunk holes of door assembly (See Drawing 56-10113-SUPP for details). This will serve to seal beneath the rivet and washer next installed.



- 3.4 Install MS16535 rivets with NAS1149CN432R washers.

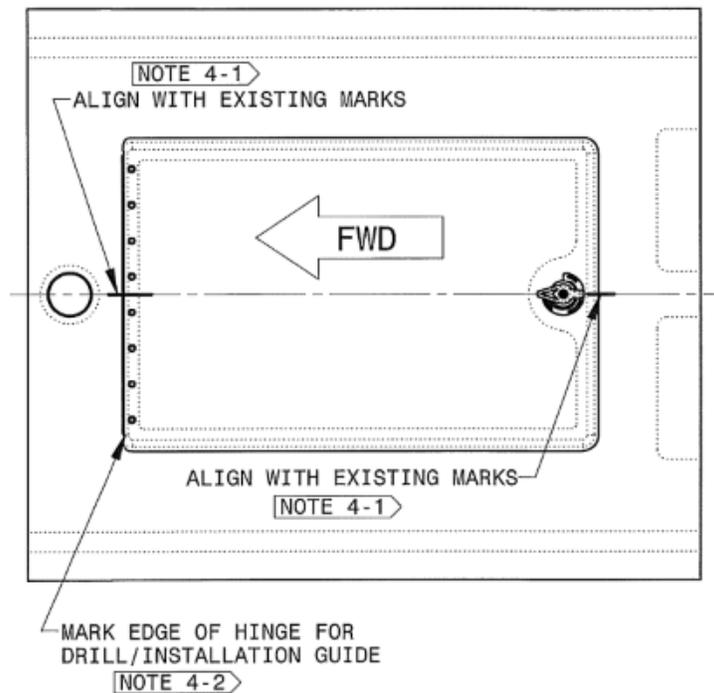


- 3.5 Remove clecos and install remaining rivets and washers.
- 3.6 Allow adequate sealant cure time. (Sika Flex 292i) is about 12 hours cure time. (Work can continue in other areas.) Excess sealant may be removed using a knife after initial cure time.

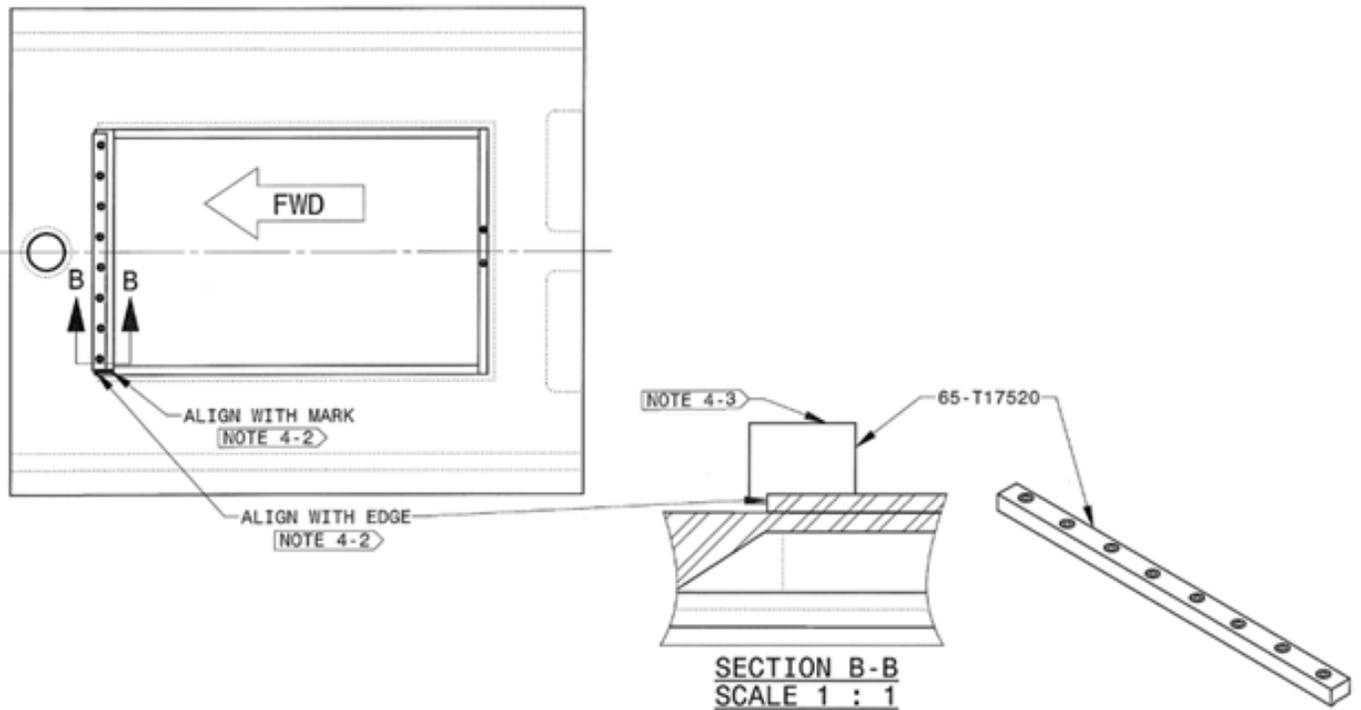
This completes the installation of the hinge half to the door assembly.

STEP 4: REPLACEMENT OF HINGE HALF, HULL ASSEMBLY SIDE, METHODS 1 & 2

- 4.1 With hinge assembled (one half already installed to the door assembly), locate door assembly in place temporarily, assuring that all previously established marks are acceptably aligned. (Marks on door assembly are aligned to marks on hull.) Illustration below refer to Drawing 56-10113-SUPP Sheet 4.



- 4.2 Mark the location of either the inboard or outboard edges of the hinge with a fine, felt-tipped pen.
- 4.3 Locate Aerocet drill fixture 65-T17520-supp with the heel of the fixture against the FWS edge of the locker opening stand-off. Locate the inboard or outboard edge of the drill fixture with the mark made in step 4-2. Illustration below refer to Drawing 56-10113-SUPP Sheet 4.



- 4.4 Clamp this fixture firmly in place with several C-clamps or other suitable means. Leave adequate space for drill to pass without striking clamps and moving the fixture during drilling.
- 4.5 With fixture secured, drill all holes with #10 drill.
- 4.6 Remove fixture and clean the bonding areas of float hull and hinge of all dust and debris using acetone.
- 4.7 With the hinge half bond size up, apply a bead of sealant, approximately $\varnothing 1/16''$ as shown, around periphery and between holes.
NOTE: Avoid applying sealant too near or within rivet holes as this will foul clecos and will create undue mess.
- 4.8 Install MS24694 machine screws, washers, and nuts. Illustration below refer to Drawing 56-10113-SUPP Sheet 4.



- 4.9 Install hinge and locker door assembly with hinge pin, assuring proper function of the latch.
- 4.10 Allow for adequate sealant cure time. (12 hours for Sika Flex 292i). Excess sealant may be removed using a knife after initial cure time.

REQUIRED TOOLS:

1. Standard set of mechanic's hand tools, including wrenches, sockets and screw drivers
2. Work light (for use inside the float compartment).
3. Scraper, such as a gasket scraper or a knife for severing existing sealant.
4. 120 grit sandpaper
5. Fine, felt-tipped pen
6. 3/8" cordless or corded drill with #50, #30, & #10 drill bits.
7. Standard size caulking gun (for use with sealant application)
8. Rivet compression tool with proper semi-tubular rivet anvil



PART KIT FOR ONE LOCKER DOOR RETROFIT METHOD 1 – REPLACE HINGE ONLY

| Item No. | Qty | TYPE | PART NUMBER | DESCRIPTION |
|--|-----|-------|---------------|--|
| 1 | 1 | ASSY | 65-16515 | LOCKER HINGE ASSEMBLY, 13 3/8 |
| 2 | 8 | HRDWR | MS16535-177 | RIVETS, SEMI-TUBULAR OVAL HEAD LENGTH A/R |
| 3 | 8 | HRDWR | NAS1149CN432R | WASHERS, FLAT, STAINLESS |
| 4 | 8 | HRDWR | MS24694C54 | MACHINE SCREW, FLAT COLOUNTERSUNK HEAD, 100° |
| 5 | 8 | HRDWR | NAS1149C0316R | WASHER, FLAT, STAINLESS |
| 6 | 8 | HRDWR | MS21083C3 | NUT, SELF-LOCKING, LOW HEIGHT, STAINLESS |
| Drawing included: 56-10113-SUPP | | | | |
| NOTE: A drill fixture (65-T17520) is required and available upon request by calling Aerocet Parts (208) 448-0400. Only one drill fixture is required, regardless of the number of kits you require. | | | | |

PART KIT FOR ONE LOCKER DOOR RETROFIT METHOD 2 – REPLACE ENTIRE DOOR ASSEMBLY

| Item No. | Qty | TYPE | PART NUMBER | DESCRIPTION |
|--|-----|-------|---------------|--|
| 1 | 8 | HRDWR | MS24694C54 | MACHINE SCREW, FLAT COLOUNTERSUNK HEAD, 100° |
| 2 | 8 | HRDWR | NAS1149C0316R | WASHER, FLAT, STAINLESS |
| 3 | 8 | HRDWR | MS21083C3 | NUT, SELF-LOCKING, LOW HEIGHT, STAINLESS |
| 4 | 1 | ASSY | 65-16510 | LOCKER DOOR ASSEMBLY |
| Drawing included: 56-10113 – SUPP | | | | |
| NOTE: A drill fixture (65-T17520) is required and available upon request by calling Aerocet Parts (208) 448-0400. Only one drill fixture is required, regardless of the number of kits you require. | | | | |

Revisions

| Rev | Date | Page | Summary of Change | Authorized by |
|-----|------------|--------|--|---------------|
| I/R | 05/22/2018 | All | Initial Release | LM |
| A | 02/07/2019 | 9 | Changed item #4 in Part Kit for Method 2 to 65-16510 instead of 65-17510 | LM |
| C | 12/20/2021 | 5 §3.4 | Remove: Install MS16353 rivets with NAS1149CN416R washers beneath heads. Add: Install MS16535 rivets with NAS1149CN432R washers. | LM |

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