



<b>SERVICE LETTER NUMBER 98</b>			
<b>TITLE: MAIN GEAR RAM INSPECTION AND IMPROVEMENT</b>			
BY: J. SORTOR	AIRCRAFT MAKE/MODEL(S):	FLOAT MODEL(S):	NOTE(S):
APP: K. TAYLOR			
DATE: 2/1/12			
REV: B			
		ALL AMPHIBIOUS 6100, 8000, 10000 ,13000	MANDATORY S/L P/N 1002759 ECO--21213

**FAA APPROVAL HAS BEEN OBTAINED FOR TECHNICAL DATA IN THIS PUBLICATION THAT AFFECTS STC OR TSO DESIGN COMPLIANCE**

**EFFECTIVITY:** This service letter is to inform customers of a main gear required inspection and subsequent product improvement. All amphibious 6100, 8000, 10000 and 13000 are affected by this change.

**COMPLIANCE:** Inspection of the actuating ram and replacement of the set screws is mandatory at next 100 Hour Inspection, Annual Inspection or main gear servicing. Further maintenance is only required based on the results.

**BACKGROUND:** Some of our customers have had main gear trolley failure. This has been linked to uneven scoring and gouging on the main gear ram. It is normal for the set screw to wear into the ram over time, but when that wear becomes jagged or uneven, the set screw breaks and the main gear retraction fails.

**COMPLIANCE METHOD:** The main gear actuating ram needs to be inspected under the trolley gear lock. If there is uneven wear or pocketing from the set screw on the ram, as in Figure 2, the rod must be polished smooth or replaced. We authorize and encourage customers to polish the ram when possible. The set screws must be replaced if they have a dimple in the end as they have been improved by removing the machined dimple and polishing

**APPROX. SHOP HOURS:** Varies on installation

**WARRANTY INFORMATION:** If floats were a bought 1 year or newer from the original release date of this service letter April 4 2008, parts AND labor are under warranty. Otherwise parts only are under warranty.

## TECHNICAL DATA:

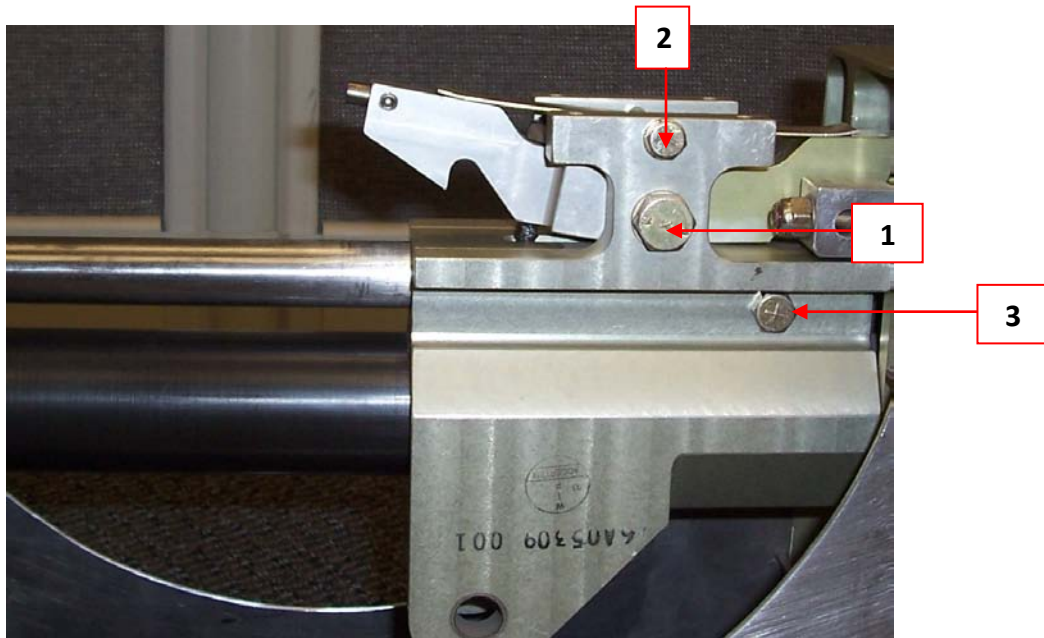


FIGURE 1

### Inspection Instructions

1. Jack the aircraft as per the respective Service Manual. Remove the appropriate inspection plate for access to the main gear ram trolley. To get the trolley in the right place, pull the circuit breaker for gear retraction and put the gear switch in the up position. Then just bump the circuit breaker until the trolley is in the window but not in the fully locked position.
2. Remove the main ram catch bolt (Item 3, Figure 1). Lift the down lock and the ram will slide out.

DEPRESSION IN GEAR RAM

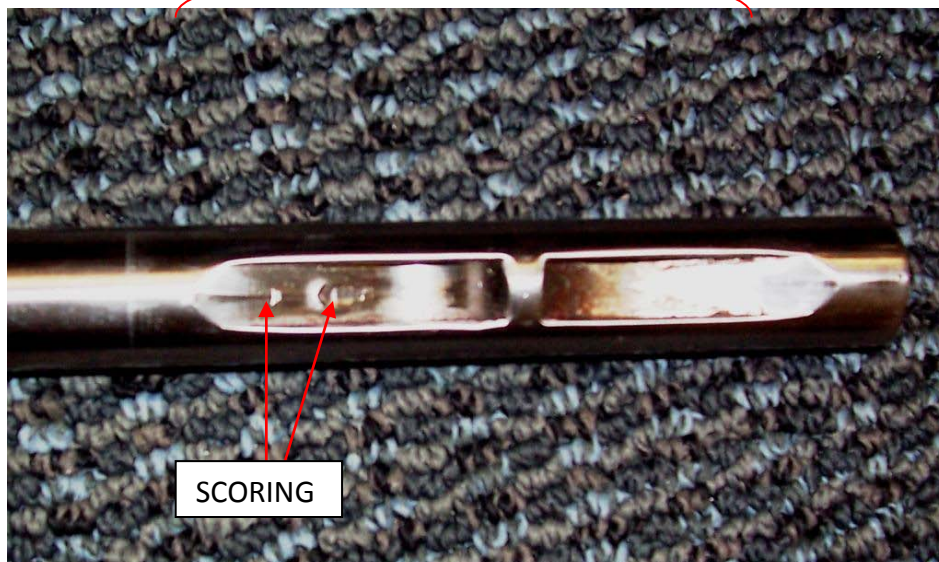


FIGURE 2

3. Inspect ram depressions for wear. It will likely appear as scoring; this is from the set screws applying pressure as they slide past the depressions onto the body of the ram. The wear must be smooth without gouging or scoring.
4. If there is no wear, or the wear is smooth and even, fill the depressions with grease, install new set screws that have the smooth ends and put everything back together.

**NOTE:**

**When replacing the set screws, setting the Height can take some trial and error. Start with 3-4 threads showing above the trolley and adjust as necessary to make the gear locks Work properly.**

5. If there is uneven wear on the ram, it will have to be polished smooth or replaced.
6. When parts are received, put back together and fill ram depressions with grease before final assembly.
7. When this Service Letter has been complied with, make an entry in the logbook as to its completion and whether or not the ram and set screws were replaced

**CAUTION**

**MAKE SURE NOT TO OVER-TIGHTEN THE TROLLEY BOLT (Item 1&2, Figure 1). THE LOCKING LATCHES SHOULD MOVE FREELEY AFTER THE BOLTS ARE SNUG.**

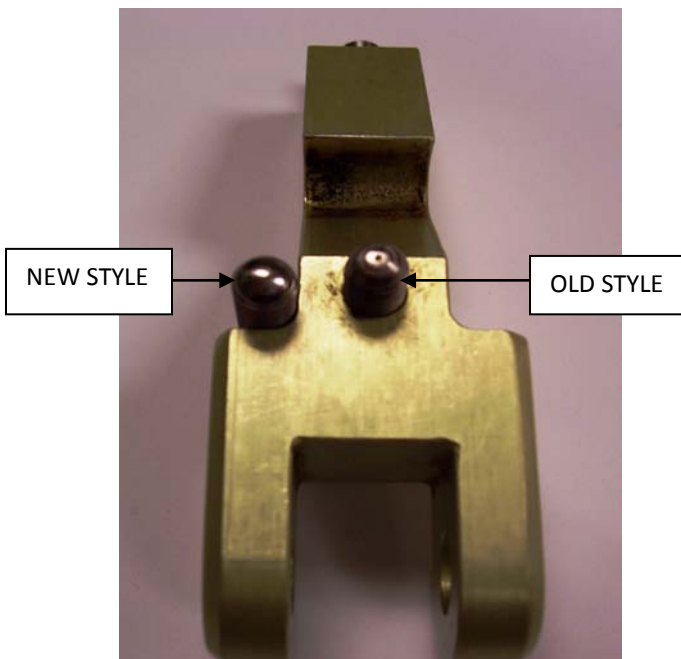


FIGURE 3

8. The product improvement part of this Service Letter is that the set screw is now manufactured so that there is no indent at the tip. Figure 3 illustrates the difference

### END ###