



SERVICE LETTER NUMBER 148			
TITLE: 3000/3450 GEAR SNUBBER ADDITION AND ACTUATOR PART MODIFICATION			
BY: D.SMITH	AIRCRAFT MAKE/MODEL(S): N/A	FLOAT MODEL(S):	NOTE(S):
APP: S.Wagner		3000A	MANDATORY
DATE: 9/10/13		3450A	COMPLIANCE
REV: A			ECO-23305

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

EFFECTIVITY:

This service letter applies to all 3000/3450 starting with S/N 30223A & up for 3000A and 34267A & up for 3450A.

COMPLIANCE:

Service letter compliance is mandatory.

BACKGROUND:

A "SHAFT, ROTARY ACTUATOR, MAIN GEAR" (1005277) has sheared off at the O-ring groove in a float and has been bent in another float. See Figure 1.1.

COMPLIANCE METHOD:

1. Installation of SNUBBER (1006680) on MAIN GEAR SIDE SUPPORT LH (1004882).
2. Installation of SNUBBER (1006681) on MAIN GEAR SIDE SUPPORT RH (1005375).
3. Removal and replacement of UPPER SHOCK ARM, MAIN GEAR (1004289 Rev B (see figure 2.1)) with UPPER SHOCK ARM, MAIN GEAR (1004289 Rev C (see figure 2.2))
4. Removal and replacement of ACTUATOR, ARM, MAIN GEAR (1005280 Rev A (see figure 3.1)) with ACTUATOR, ARM, MAIN GEAR (1005280 Rev B (see figure 3.2))
5. Removal and replacement of ACTUATOR, SHAFT, MAIN GEAR (1005277 Rev C (see figure 1.1)) with ACTUATOR, SHAFT, MAIN GEAR (1005277 Rev D (see figure 1.2)).

APPROX. SHOP HOURS:

The functions outlined by this Service Letter will take approximately 12-16 hrs. to accomplish.

WARRANTY INFORMATION:

This service letter includes a full warranty for parts and labor to correct this safety issue.

TECHNICAL DATA:

Copies of this service letter, float service manual, and float parts manual are available on the website www.wipaire.com.

See Figure 4 for details on part replacement and modification.

Refer to service manual for 3000 & 3450 floats (1002550).

SERVICE PROCEDURES:

1. Secure airplane safely first before following the procedures for replacement of parts.
2. Jack up the main gear until the tire is not in contact with the ground (refer to float service manual section 4.0).
3. Remove main landing gear from float (refer to service manual section 6.2.2).
4. Replace 1005280 (Rev A)(Figure 2.1) with 1005280 (Rev B)(Figure 2.2), and 1004278 (Rev B)(Figure 3.1) with 1004278 (Rev C)(Figure 3.2). See Figure 4.
5. Remove actuator from float (refer to service manual section 6.2.3).
6. Replace actuator shaft 1005277 (Rev C)(Figure 1.1) with 1005277 (Rev D)(Figure 1.2). See Figure 4. When shaft is removed make certain to mark spur and rack gears so new shaft is in same position.
7. Modify parts 1004882, 1004893, 1004894, 1005375 by fitting up Tool, Location, Snubber 1006714, and 1006715 in to corners of 1004882 and 1005375 as shown in Figures 5.1 and 5.2, match drill $\varnothing.25$ hole thru 1004882, 1004893, 1004894, 1005375 and $\varnothing.19$ hole thru 1004882 and 1004894.
8. Apply sealant to snubbers and attach with hardware shown in Figure 4.
9. With the actuator re-assembled but still uninstalled check the up and down position for accuracy. Attach the actuator to the float hydraulic line outside of the float access

opening. With aircraft hydraulic system, actuate the gear to up or down position. Once full travel is achieved, slide the TOOL, ALIGNMENT, ACTUATOR (1006709) over the end of the shaft with the key placed in the keyway. Check the alignment of the template with (3) ¼" mounting holes in the actuator housing. This adjustment is critical for the proper function of the over-center lock in both directions. The adjustment is accomplished by the in or out movement of the piston stop adjustment screw in the end cap of both cylinders on each actuator. The tolerance should be held to $\pm 1^\circ$ of template, at both up and down stop limits.;

10. Reinstall main gear and actuator (refer to service manual section 6.2.5-6.2.6).

NOTES:

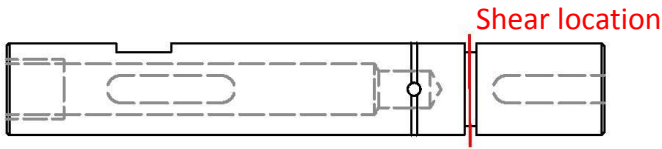


Figure 1.1
(1005277 Rev C)

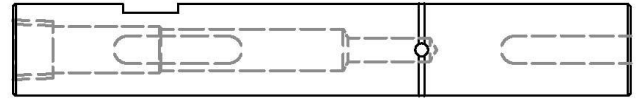


Figure 1.2
(1005277 Rev D)

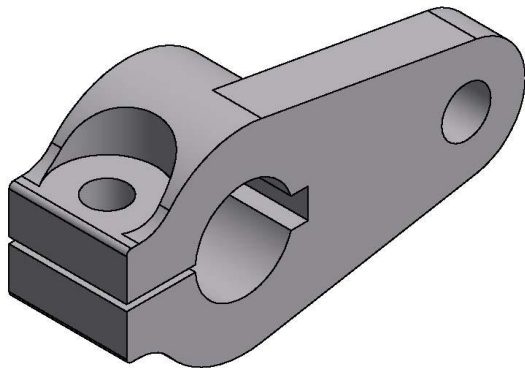


Figure 2.1
(1005280 Rev A)

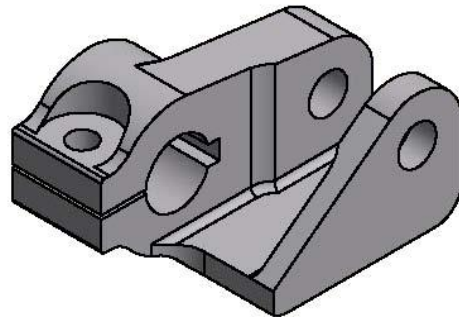


Figure 2.2
(1005280 Rev B)

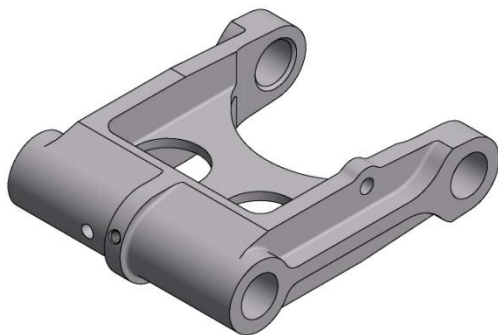


Figure 3.1
(1004882 Rev B)

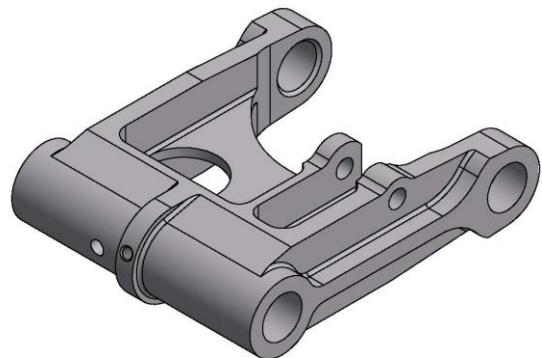
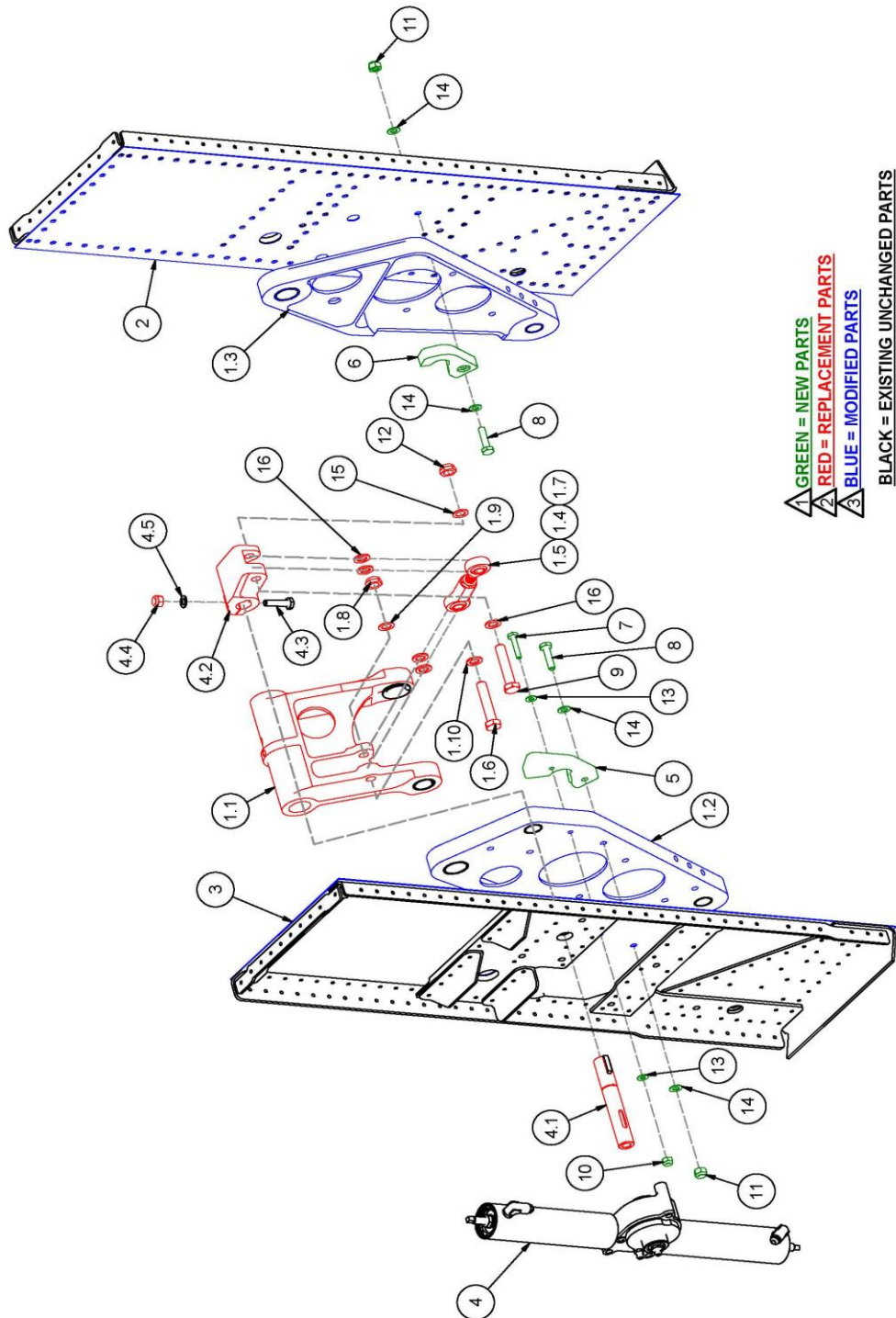


Figure 3.2
(1004882 Rev C)



1 GREEN = NEW PARTS
2 RED = REPLACEMENT PARTS
3 BLUE = MODIFIED PARTS
BLACK = EXISTING UNCHANGED PARTS
 FOR CLARITY NOT ALL PARTS ARE SHOWN

Figure 4
 (Explosion for part ID and location)

Figure 4 Part Table

ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	1004291-04	ASS'Y, MAIN GEAR, RIGHT, HEAVY DUTY, 30003450
△ 1.1	1	1004289	ASS'Y, UPPER SHOCK LINK
△ 1.2	1	1004882	ASSY, SIDE SUPPORT, LH, MAIN, 3000 3450
△ 1.3	1	1005375	ASSEMBLY, SIDE SUPPORT, RH, MAIN, 3000 3450
△ 1.4	1	59915K484	BALL JOINT END, FEMALE
△ 1.5	1	59915K274	BALL JOINT ROD END, MALE
△ 1.6	1	AN6-17A	BOLT
△ 1.7	1	AN316-6R	NUT, JAM,3/8-24 UNF, Right, Steel
△ 1.8	1	MS21083N6	NUT
△ 1.9	1	NAS1149F0632P	WASHER
△ 1.10	3	NAS1149F0663P	WASHER
△ 2	1	1004893	ASSEMBLY, PANEL, MAIN GEAR
△ 3	1	1004894	ASSEMBLY, PANEL, MAIN GEAR
4	1	1005271	ASSEMBLY, ROTARY ACTUATOR, MAIN GEAR
△ 4.1	1	1005277	SHAFT, ROTARY ACTUATOR, MAIN GEAR
△ 4.2	1	1005280	ARM, GEAR ACTUATOR, 3000 3450
4.3	1	AN4-10A	BOLT
△ 4.4	1	MS21044N4	NUT
4.5	1	NAS1149D0416J	WASHER
△ 5	1	1006680	BLOCK, SNUBBER, LARGE
△ 6	1	1006681	BLOCK, SNUBBER, SMALL
△ 7	1	AN3-10A	BOLT
△ 8	2	AN4-10A	BOLT
△ 9	1	AN6-17A	BOLT
△ 10	1	MS21044N3	NUT
△ 11	2	MS21044N4	NUT
△ 12	1	MS21083N6	NUT
△ 13	2	NAS1149F0332P	WASHER
△ 14	4	NAS1149F0432P	WASHER
△ 15	1	NAS1149F0632P	WASHER
△ 16	3	NAS1149F0663P	WASHER

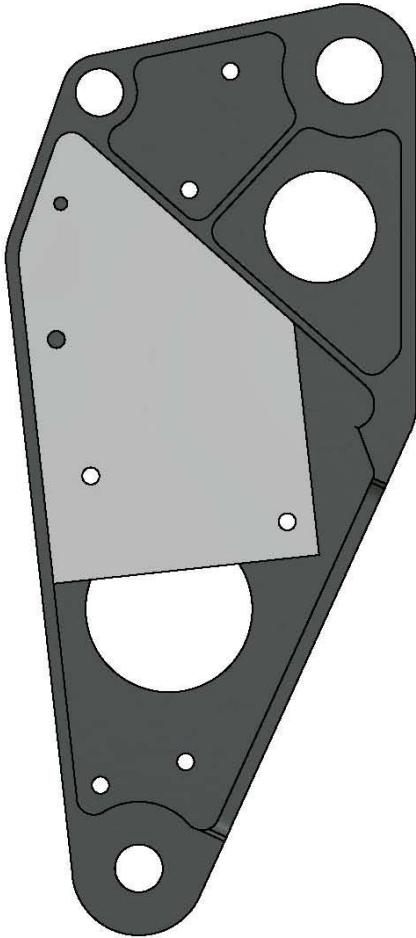


Figure 5.1
Left hand side support panel

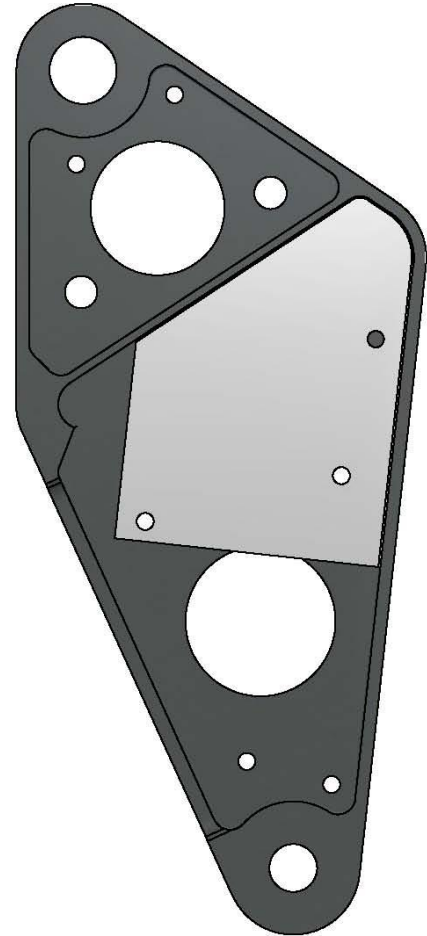


Figure 5.2
Right hand side support panel



KIT CONTENTS:

The following parts are included in this service kit. Part quantities shown are for changing out parts in both floats. 1 kit is required per float set.

Part Number	QTY	Description
1004289	2	ASSEMBLY, UPPER SHOCK LINK
1005277	2	SHAFT, ACTUATOR, MAIN GEAR
1005280	2	ARM, ACTUATOR, MAIN GEAR
1006680	2	BLOCK SNUBBER, LARGE
1006681	2	BLOCK SNUBBER, SMALL
1006709	1	TOOL, ALIGNMENT, ACTUATOR
1006714	1	TOOL, LOCATION, SNUBBER, LARGE
1006715	1	TOOL, LOCATION, SNUBBER, SMALL
59915K484	2	BALL JOINT END, FEMALE
59915K274	2	BALL JOINT ROD END, MALE
AN3-10A	2	BOLT
AN4-10A	4	BOLT
AN6-17A	4	BOLT
AN316-6R	2	NUT, JAM
MS21044N3	2	NUT
MS21044N4	6	NUT
MS21083N6	4	NUT
NAS1149F0332P	4	WASHER
NAS1149F0432P	8	WASHER
NAS1149F0632P	4	WASHER
NAS1149F0663P	12	WASHER

END