

Service Letter #: SL12-1542100

Date: 1/05/2015

Part/Assembly #: 15-42100 Lower Nose Gear Assembly, Aerocet Model 1500 Floats.

Float Model/Aircraft Affected: 1500 Amphibious Model Floats, Float Serial Numbers 1214-04-1500 and prior.

Subject: Product Improvements on Aerocet Nose Gear Assembly P/N 15-42100.

This service letter is notification of the following product improvements by Aerocet, Inc. to the Lower Nose Gear Assembly Model 1500 (Aerocet P/N 15-42100), affecting Amphibious Float Model 1500, Production Numbers 1214-04-1500 and previous. These product improvements have been incorporated into new 1500 Float Models with production numbers 0115-06-1500 and later. This modification is intended to enhance performance, longevity and operation of the lower nose gear.

15-42114 Pivot Pin, Lower Nose Gear

This design change allows direct lubrication to the pivot mechanism and improved pivot friction adjustment. Adjust nose wheel pivot friction by changing the washer thicknesses, or adjusting the shim count. The proper force required to pivot the fork near the axle center is 2.25-2.75 lbs.

Note: To accommodate installation Aerocet, Inc. may provide the components to the pivot mechanism pre-assembled, adjusted and torqued as specified per the manufacture.

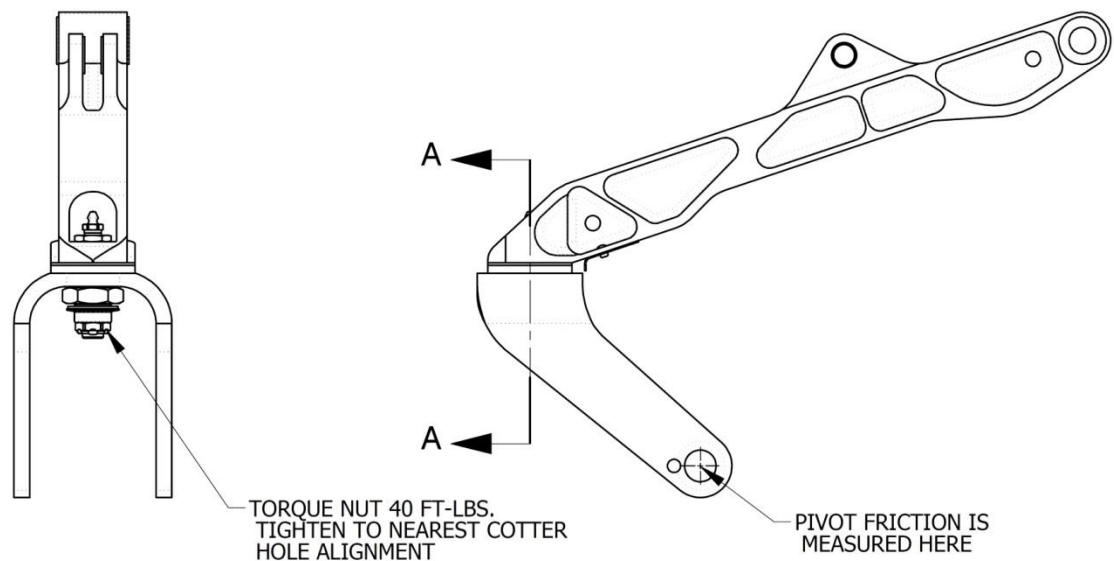


Figure 1

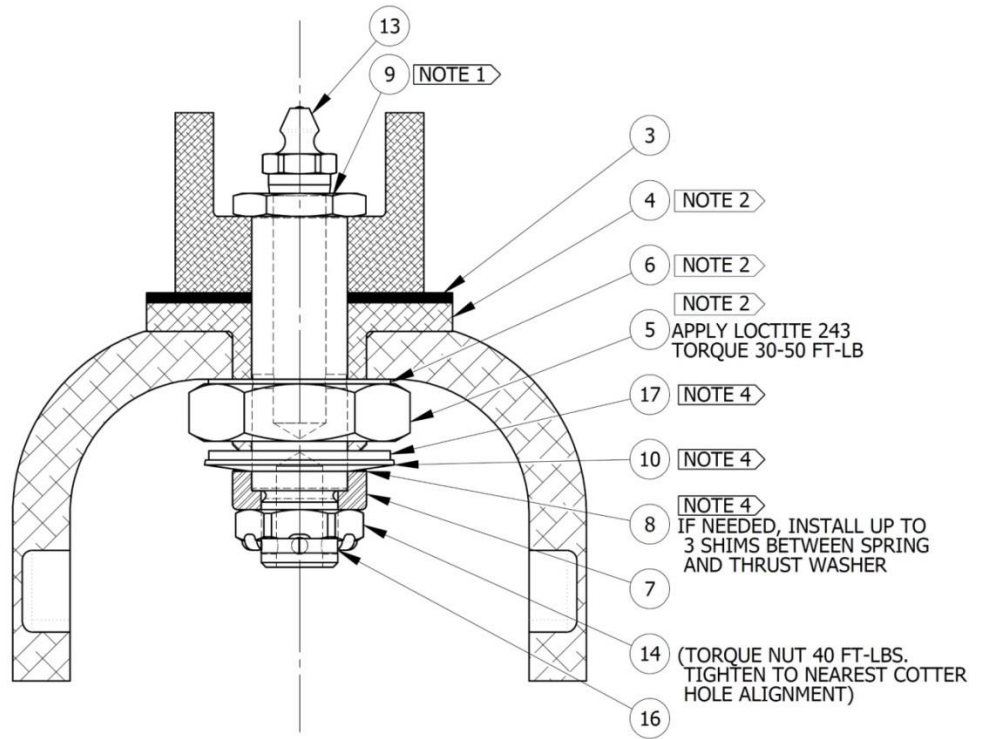


Figure 2

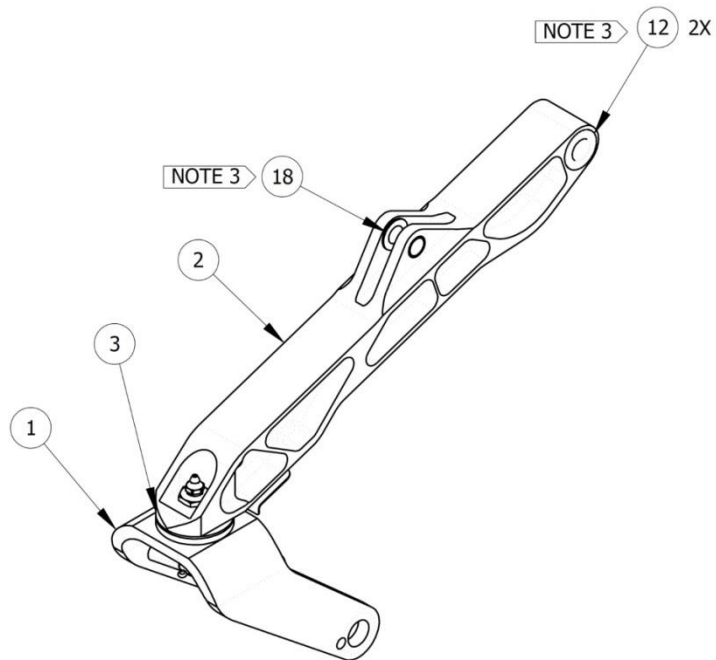


Figure 3

NOTES:

- 1) PRESS 15-42105 PIVOT PIN INTO 15-42104 GEAR ARM. ORIENTATION IS OPTIONAL.
- 2) PRESS FIT 15-42109 BUSHING INTO 15-42101 NOSE FORK. INSTALL 15-42111 SPACING WASHER, THEN 15-42110 BUSHING NUT, WITH LOCTITE AND TORQUE AS SPECIFIED.
- 3) PRESS FIT IGLIDES INTO AFFECTED PARTS. NOTE ORIENTATIONS.
- 4) PIVOT FRICTION IS ADJUSTED BY CHANGING THE WASHER THICKNESS, OR BY ADJUSTING SHIM COUNT.

WITH THE 15-42112 THRUST WASHER FULLY SEATED AGAINST THE SHOULDER OF THE PIVOT PIN, THE LOAD REQUIRED TO PIVOT THE FORK NEAR THE AXLE CENTER SHOULD BE 2.25-2.75LB.

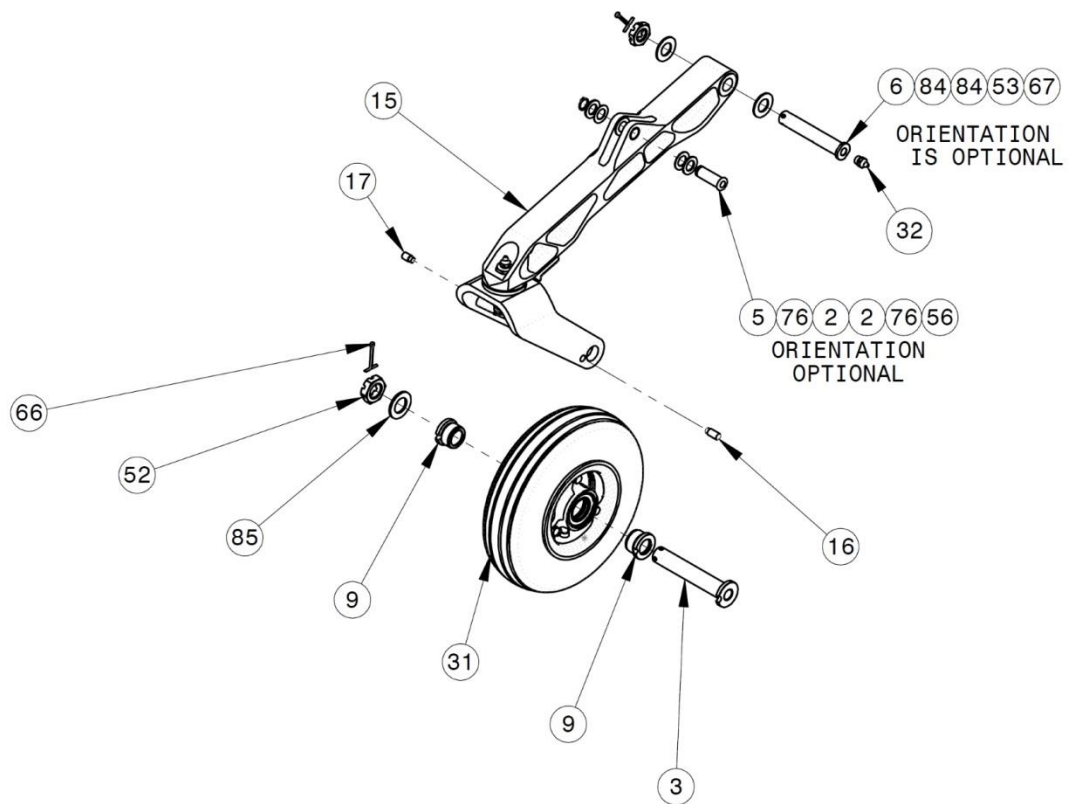


Figure 4

Note: 15-42011 Axle & 15-42020 Tensioners must align with lock pins. Recommend Replacement of the supplied M83461/1-018 O-Rings in Tensioner Assemblies at the time of the upgrade installation.

PARTIAL PARTS LIST FOR 15-42000 NOSE LANDING GEAR ASSEMBLY AND INSTALLATION			
ITEM NO.	QTY	PART NUMBER	DESCRIPTION
2	2	15-22102	WASHER, FLAT, PLASTIC, Ø1/2
3	1	15-42011	AXLE
5	1	15-42013	PIN, NOSE GEAR
6	1	15-42016	REAR PIN, NOSE GEAR LOWER ASSEMBLY
9	2	15-42020	TENSIONER ASSEMBLY, NOSE GEAR
16	1	15-42102-1	LOCKPIN, AXLE SIDE, LOWER NOSE GEAR
17	1	15-42102-2	LOCKPIN, NUT SIDE, LOWER NOSE GEAR
31	1	15-51040	2.0" X 4.0" WHEEL ASSEMBLY (2.80/2.50 - 4)
32	1	35-80003	STRAIGHT GREASE FITTING, 1/8-27 PTF THREADS
52	1	AN320-12	NUT, PLAIN, CASTELLATED, SHEAR
53	1	AN320C10	NUT, PLAIN, CASTELLATED, SHEAR
56	1	MS16624-4050	RETAINING RING, EXTERNAL
66	1	MS24665-362	COTTER PIN
67	1	MS24665-377	COTTER PIN
76	2	NAS1149C0863R	WASHER, FLAT, STAINLESS
84	2	NAS1149D1063K	WASHER, FLAT
85	1	NAS1149D1290K	WASHER, FLAT

Procedures:

Replace 15-42100 Lower Nose Gear Assembly with associated replacement hardware as shown in (Fig 3). Note: If pivot mechanism is pre-assembled by Aerocet, Inc. proceed to step 4.

- 1) Replace 15-42105 Pivot Pin with 15-42114 Pivot Pin and 15-42109 Bushing, Nose Fork (Fig. 2). Note: Press 15-42114 Pivot Pin into 15-42104 Gear Arm. Orientation is optional.
- 2) Press fit 15-42109 Bushing into 15-42101 Nose Fork (Fig. 2).
- 3) Install 15-42111 Spacing Washer, then 15-42110 Bushing Nut, with Loctite 243 and torque to 40 ft.-lb. (Fig. 2).
- 4) Install new 15-42016 Rear Pin with supplied hardware in SL11-1542000 and tighten nut (do not install cotter pin at this time).
- 5) Prior to attaching Oleo Assembly to the Lower Gear Arm (Fig. 4) ensure the gear arm moves freely up and down with minimal resistance.
- 6) Install Grease Fitting and begin to lubricate while moving the gear arm up and down, continue until bearings and pin are properly coated. Double check bearing pre-load, make adjustments if required.
- 7) Install cotter pin.

This is to be accomplished during the next scheduled maintenance period, not to exceed the next 100 hour or annual inspection.



Upgrade Kit Parts List: (This is for the 15-42100, does not include the bushings and pivot axle that are part of the 15-42000.)

PARTS LIST FOR 15-42100 LOWER NOSE GEAR ASSEMBLY					
ITEM NO.	QTY	TYPE	PART NUMBER	DESCRIPTION	COMMENTS/ALTERNATES
1	1	PART	15-42101	NOSE GEAR YOKE	
2	1	PART	15-42104	GEAR ARM, LOWER NOSE LANDING GEAR	
3	1	PART	15-42106	BEARING PLATE, LOWER NOSE GEAR	
4	1	PART	15-42109	BUSHING, NOSE FORK	
5	1	PART	15-42110	NUT, BUSHING	
6	1	PART	15-42111	WASHER, SPACING	
7	1	PART	15-42112	THRUST WASHER	
8	1	PART	15-42113	WASHER, SHIM	QTY. A/R UP TO 3
9	1	PART	15-42114	PIVOT PIN, LOWER NOSE GEAR	
10	1	PART	15-42115	DISC SPRING, 5/8" SHAFT	
11	1	PART	15-42121	DEFLECTOR, LOWER NOSE GEAR	
12	2	PART	15-42122	PLAIN BEARING, FLANGED, NOSE GEAR	
13	1	PART	35-80003	STRAIGHT GREASE FITTING, 1/8-27 PTF THREADS	
14	1	HRDWR	MS17826-8	NUT, SELF-LOCKING, CASTELLATED, NON-METALLIC INSERT	
15	2	HRDWR	MS20470AD4-5	RIVET, SOLID, UNIVERSAL HEAD (LENGTH A/R)	
16	1	HRDWR	MS24665-304	COTTER PIN	LENGTH A/R
17	1	HRDWR	NAS1149C1063R	WASHER, FLAT	NOTE 3
18	2	HRDWR	TFI-0809-06	PLAIN BEARING, FLANGED (iglide P/N)	
66	2	HRDWR	MS24665-362	COTTER PIN	
	4	HRDWR	M83461/1-018	O-RING	A PART OF 15-42020 TENSIONER ASSEMBLY

Time Required: 1 hour 15 minutes per side

Note: Aerocet, Inc. to provide the parts and hardware at no cost. All labor costs for replacement and installation of the upgraded parts are to be covered at the owner's expense.

END