



## RBW Industries<sup>Inc</sup> Technical Service Advisory

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### ***Troubleshooting and Repairing RBW Industries 5<sup>th</sup> Wheel Landing Gear Systems (5500 Series Helical Gear Style)***

#### **Overview**

This bulletin is intended to assist in the identification of specific 5500 series landing gear leg models, identification of root causes of damage to these landing gear legs and will also enable you to determine if a repair is warrantable or non-warrantable. Following the procedures outlined below will help you properly diagnose the problem and allow you to promptly take care of your customer.

#### **Identifying the Specific 5500 Series Model**

While similar in appearance, there are slight but critical differences between the three different models of 5500 Series landing gear systems. The simplest way to differentiate between the different models is to determine the diameter of the clevis pin that holds the quick drop leg in place. Refer to the following:

5500-1 = 3/8 inch diameter Clevis pin  
5500-2 = 1/2 inch diameter Clevis pin  
5500-3 = 3/4 inch diameter Clevis pin w/black handle

#### **Inspection of the Landing Gear Leg**

**Step 1.** Examine the inner leg for a bent condition. With the load removed from the landing gear, grasp the innerleg (the section of tubing that moves when the leg is powered or cranked) and attempt to move it side to side and front to back. If no movement is felt, visually inspect for a bent condition. If the leg is bent, replace the leg. If the innerleg (not the drop leg) slides up and down, proceed to step 3. If the innerleg is not bent and does not slide up and down, continue to Step 2.

**Step 2.** Remove the dust cap covering the gears at the top of the leg. Examine the collar of the small silver colored gear (55-48) for damage where it pins to the shaft. Damage to the collar of the gear is usually caused by over retraction of the innerleg. Verify over retraction by examining the bottom of the innerleg. If there are scrape marks on the innerleg closer than 1" to the clevis pin that holds the drop leg in place, the leg has been over retracted. Replace the damaged parts using the repair kit available from RBW Industries. Advise your customer to stop retracting the leg when there is a minimum of 3" distance measured from the bottom of the outer body of the leg to the footpad, (reference Operation and Maintenance Guide, page 2, heading "Retracting your Landing Gear" paragraph 2). If there is no gear damage, but the leg is bound up, proceed to Step 3.

**Step 3.** Remove the shear pin that holds the large helical gear (55-28) in place. Remove the gear from the shaft and slide the innerleg out the bottom of the outer body. If the innerleg was sliding up & down, examine the acme nut retainer at the top of the innerleg. Inspect the "fingers" that holds the acme nut retainer in place. If the "fingers" are broken off or bent upwards severely, replace the complete leg assembly. If the "fingers" are slightly bent, this is due to over retraction. No replacement is necessary. If the innerleg is bound up, examine the acme nut retainer. You will probably find the acme screw coupler digging into the acme nut retainer. Tap out the acme nut retainer and turn the acme screw counter clockwise until there is approximately 1 1/2" clearance from the acme nut to the bottom of the acme screw coupler. Reinstall the acme nut retainer and reassemble the leg.



**Warrantable and Non-Warrantable Repairs**

1. Collar on the 55-48 gear is broken or damaged. **Not warrantable.** *Caused by over retraction or attempted operation of a bent leg.*
2. Innerleg is bent. **Not warrantable.** *Caused by aggressive hook up or coach movement while on the landing gear.*
3. Landing gear is bound up. **Not warrantable.** *Caused by over retraction.*
4. Innerleg slides up & down. **Warrantable.**
5. Weld failure. **Warrantable.**

If you have any questions, our Technical Support personnel are available to assist you Monday through Friday from 8:00 AM to 5:00 PM (Pacific) at 800-451-7821.