

WING LOLLIPOP UPGRADE INSTALLATION INSTRUCTIONS

Estimated Time: 4-5 Hours per disc

Tools Required:

Torch

Grinder

Welder

(2) ¾" wrenches

(2) C-Clamps (at least 8")

Jack—small bottle jack or floor jack

Block

Square

Tape-measure

Chalk/marketing pen

- 1) Lower disc so the gangs are resting on the ground and the wheels are off the ground (do not retract cylinders completely). Using the block and bottle jack or the floor jack lift the wing running gear slightly to take the pressure off the lift cylinder's pins. Remove both cylinder pins and place the cylinder a safe distance off to the side and cover the cylinder and hoses with something to protect them from sparks and heat and to remove the risk of an oil fire.
- 2) After ensuring none of the hydraulic components are in danger of catching fire, torch off the existing cylinder ear that is welded to the upper wing frame, while leaving the formed base plate intact. After the ear has been removed, grind the surface of the base mounting plate so it is suitable for welding.



- 3) After removing the upper cylinder ear, torch off the existing lollipop weldment located on the wing running gear leg, while again leaving the base plate intact. After torching, grind the base plate surface flat so it is suitable for welding.



- 4) Take the lollipop alignment jig and clamp it in place on top of the wing frame as shown. The jig should straddle the upper base plate while resting on the top surface of the frame. Push the jig into the corner of the frame as far as it will allow and then clamp it. The jig will work for both the right and left wings.



- 5) Pre-assemble the new lollipop to the new lollipop tower as shown, with a 2" nut on either side of the collar and with the lollipop resting on the flat protrusion (grease-zirk facing away from the weldment). Hand tighten the lollipop after adjusting the hole center to 5-5/8" from the front edge of the round tubing collar as indicated. Make sure the sides of the lollipop are flush with the sides of the tower (the lollipop should not be kinked to one side)



- 6) Place the pre-assembled lollipop assembly into the placement jig from the top and secure it in place using one of the cylinder pins as shown. This jig will get the placement of the tower close, but some tweaking by hand may still be required. Use a square to ensure the lollipop is perpendicular to the frame. The outside face of the lollipop should be 5-1/8" from the inside face of the wing frame's outer tube. Once these steps have been taken, tack the lollipop tower in place while it is still in the jig. After tacking, remove the jig from the frame and weld the tower solid.



- 7) Next, re-install the cylinder onto the new lollipop. The rod end of the cylinder will be used to help place the bottom cylinder lug on the running gear leg.

- 8) The lower lug will be located the same distance from the bottom of the running gear leg as the Main Frame running gear lugs are. On the Main Frame running gear, measure the distance from the bottom of the running gear leg to the center of the pin as indicated. You may also measure the distance from the bottom of the leg to the top edge of the lug for extra reference, but the distance to the hole center is the measurement that should be used.



- 9) On the wing running gear leg, measure and mark the distances measured on the main frame running gear. Install the new lug to the cylinder with the cylinder pin and rest on the wing running gear base plate near the marks. While positioning the lug from side to side, make sure the cylinder is not binding on the piston end, if the cylinder is binding in any way and the bottom lug is welded at that position it could lead to premature seal wear. Once the lug is placed from side to side it may be necessary to raise or lower the jack slightly to allow the lug to reach its proper location from the bottom of the running gear leg. Once the location has been set, tack the lower lug into place, disconnect the cylinder from the lug and weld the lug into position.



- 10) The cylinder should be removed prior to painting and the process can then be repeated for the opposite wing.
- 11) After the paint has dried and the cylinders have been reinstalled, the wings' depth will need to be adjusted.