

# California Sidecar trike conversion for the GL1500 Goldwing

## **Auxiliary Fuel Tank Installation Instructions**

### **Parts List**

- 1 - Auxiliary Fuel Tank
- 1 - Front Mount
- 1 - Right Rear Mount
- 1 - Left Rear Mount
- 2 - M8 x 1.25 nyloc nut
- 2 - M8 Flat washer
- 4 - 3/4" vinyl coated steel loop clamp
- 4 - 1/4-20 x 5/8 button head socket cap screw
- 4 - 1/4-20 nyloc nut
- 8 - 1/4 x 5/8 flat washer s.s.
- 6 - 1/4-20 x 1/2 flanged button head cap screw
- 1 - Fuel Line, Braided Stainless Steel
  - 1 - 90° bulkhead fitting
  - 1 - 90° adapter 7/8" JIC - 1/2" NPT
  - 1 - 7/8-14 hex nut
  - 2 - Stat-O-Seal
  - 2 - Crush washer, 7/8 x 1-3/8 x .031
- 1 - Vapor return line hose, 36"
- 1 - 90° brass elbow, 1/4 barb x 1/8 NPT
- 2 - 1/4" Hose clamp
- 1 - female brass straight fitting, 1/4 barb x 1/8 NPT
  - 1 - Hollow hex plug w/ O-ring #3-HP5ON-5

### Tools for Auxiliary Fuel Tank Installation

7/8" or 22.5mm Knockout Punch, 3/8 X 18" drill bit, 12" socket extension

**For installation assistance, call Parts & Service @ 434.263.8866**

**CAUTION: WHEN WORKING IN AND AROUND THE FUEL SYSTEM, ALWAYS WORK IN A WELL-VENTILATED AREA, FREE FROM SPARKS AND OPEN FLAMES!**

5.1 Remove fuel line from fuel pump and plug so fuel will not leak out. Remove the six (6) nuts and disconnect three (3) color-coded electrical plugs and pull fuel pump out of tank and set aside. Drain all fuel out.

5.2 Install 90° bulkhead fitting to the bottom of auxiliary tank using Teflon sealing tape. Tighten and ensure that the fitting is pointing to the front of the motorcycle. Do not overtighten..

5.3 Install 90° brass elbow fitting in the top of the auxiliary tank using Teflon sealing tape. Tighten and ensure that the fitting is pointing towards the front of the bike. Do not overtighten.

5.4 Refer to Template 5.4 on p.5. Cut out the front section of the fender according to the template. **CAUTION: Be aware of electrical wire bundles along cut path.**

5.5 Cut both sides of inner fender where it surrounds the tour box sub-frame. Remove about 2” – enough for rear tank brackets to fit on frame. Cut off wire clip on right side of tour box sub-frame. Grind weld so that it is flush with frame and paint.

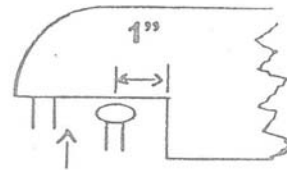
5.6 Refer to Figure A. Cut out the right side of the inner fender as shown by the white cross hatched area.

**Figure A. Fender Cut Area**



- 5.7 Loosen two ¼-20 x ½ “ flanged button head cap screws on the auxiliary tank front mount.
- 5.8 Remove the four ¾” vinyl coated steel loop clamps from the rear tank mounts and install on the motorcycle frame.
- 5.9 Position the auxiliary tank within the motorcycle frame and install two M8-1.25 x 40mm hex head cap screws through the frame and into auxiliary tank front mount. Do not tighten yet.
- 5.10 Raise the rear of the auxiliary tank into position and secure clamps to the rear tank mounts.
- 5.11 Remove the six ¼-20 x ½” flanged button head socket cap screws in sequence, and using Loc-tite, reinstall in final position.
- 5.12 Mark a point 4” in front of frame cross brace and 2” from inside of right frame rail. Cut ¾” hole centered on this mark. Route the vapor return line from vent elbow on top of auxiliary tank to filler neck of main tank, along the inside of frame rail. Ensure this vapor return line will not be pinched anywhere. Use 1 of 2 hose clamps provided to clamp hose to the small elbow. **WARNING: Be sure this hose will not be pinched by the motorcycle seat.**
- 5.13 Cut a 1” hole in right side of inner fender and route air line from compressor through this hole.
- 5.14 Install 1” steel braided line to large elbow on bottom of tank (installed in Step 5.2) and route forward towards left side of main tank. This will give you the distance into the tank. Next, you center hole by measuring 1” away from step down in tank. (See Diagram B)  
**Warning: It is important to trial fit this a few times to make sure your location is good.**

**Diagram B. OEM Tank Hole Location**



**CAUTION IS ADVISED THROUGHOUT THIS PROCEDURE SO AS NOT TO DAMAGE TANK OR MAKE HOLE TOO LARGE.**

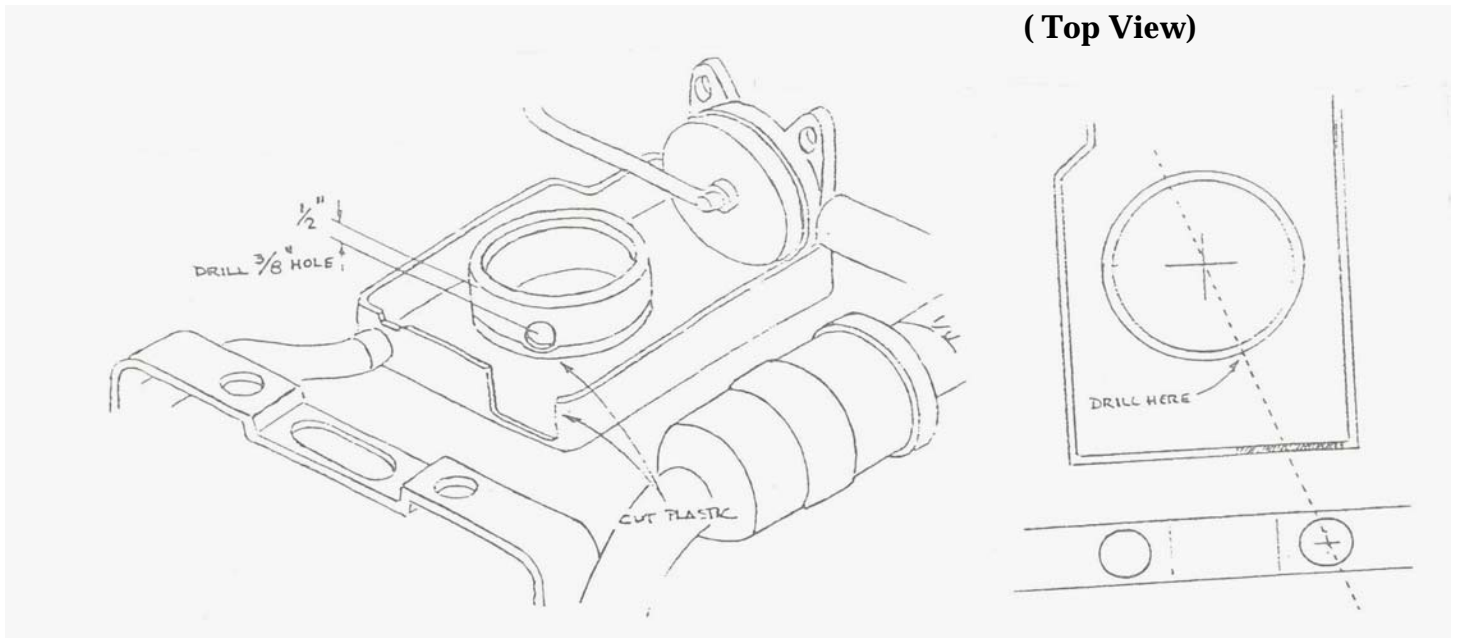
- 5.15 When location is marked, center punch from underneath tank to create guide for drilling in the next step. Using a 3/8” X 18” drill bit, drill hole for this auxiliary fuel line from

inside the tank. This hole will be the guide for the next step. Now return to the outside, underside of the tank and using a  $7/8$ " or 22.5 mm knockout punch cut the final hole.

5.16 **This step will require two people to create the proper seal.** Carefully install one (1) crush washer and (1) "O" ring washer to blue elbow fitting and push up through tank. Add second "O" ring washer and crush washer and finally blue nut to inside of tank. Tighten all fittings enough to create a seal. **Warning: Do not overtighten as you may damage the "O" ring and prevent a proper seal.**

5.17 Refer to Diagram B-1. Open fuel filter compartment and release two (2) white latches that hold stereo cover to frame. Remove two (2) black acorn nuts from stereo cover and raise stereo up and hold in elevated position with small 2 X 4 wood block. Notch out filler neck splash bucket. Cut out should be 1" wide and 1" high. Starting from right rear corner. Now drill  $3/8$ " hole through filler neck. Insert stopper plug (provided) through  $3/8$ " hole and hold in position through filler neck with an allen key. Now you will install female brass fitting to outside of stopper plug. Before tightening, put 1 drop of lock tight to threads of stopper plug. Fit hose to male end of brass fitting and tighten 2<sup>nd</sup> hose clamp. Reinstall stereo cover.

### Diagram B-1. Filler Neck and Filler Neck Splash Bucket Modification



5.18 Re-install fuel pump and fuel line and electrical plugs removed in step 5.1.

5.19 Refill the fuel tank and check for leaks.