

**INSTRUCTIONS FOR FAB9 HOUSING PART NOS. 8200, 8201 AND 8202**

<u>ITEM</u>	<u>QTY</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	521X	FAB9 Center with Tubes
2	1	80XX	Housing Ends
3	1	1301	Housing Filler Cap
4	1	3116-1.109-14B	O-ring for Filler Assembly
5	1	3566	Magnetic Drain Plug
6	1	3567	Copper Gasket for 1/2" Drain Plug
7	10	3130-038F1.50B	Bolt 12-point Flange Screw 3/8-24 x 1-1/2"
8	10	3101-038-24C	Locknut 3/8-24 Nylon Insert, Plated
9	20	3109-038-S-2-Y	Aircraft Washer 3/8" Small OD

**INSTALLATION OF AXLE BEARING HOUSING ENDS**

NOTE: If your FAB9 was purchased without the ends installed, follow this procedure for best results. Install all the suspension brackets first, then, install the backbrace. Some suspension brackets go 360 degrees around the axle tube. Do not notch them to clear the backbrace. Notch the backbrace to clear them. Next, install the backbrace on both sides of the housing. If it is too long, shorten the end at the housing end. Cap the end of the backbrace at the housing end. The last step is to weld the housing ends on to the axle tubes. This sequence will prevent distorting the housing end alignment. You must use an alignment fixture to install the housing ends. Chassisworks makes a housing alignment fixture #6708. After your housing ends are correctly aligned and welded, it might appear that they are crooked. This is because they are not perfectly centered on the axle tube. This is normal because the axle tube will bend slightly from the installation of the suspension brackets and backbrace. The housing alignment fixture holds the ends centered to the third members carrier bearings, which is not necessarily centered on the end of the axle tube. All axle bearings use a large wedding ring behind the wheel bearing. Make sure this ring clears the inside of the axle tube just inside the housing end. You may have to use a die grinder on the ID of the axle tube to gain some clearance.

**TEST AND ASSEMBLY**

1. Your housing needs a vent. Chassisworks part #8041 mounts in a 1/8 pipe thread hole that you make in an axle tube.
2. Whether you purchased your housing assembled or welded the ends on yourself, you need to pressure test it to make sure it does not leak. This is a simple procedure to perform at home. The first step is to power wash the housing after all welding is done. Use duct tape to seal the housing ends and third member hole or, install the axles and third member. Hook an airline to the axle tube vent's threaded hole and pressurize the housing at 2 to 5 lbs. of air pressure. If your duct tape seal leaks a little, don't worry, all that matters is that you create a small pressure in the housing. Use a squirt bottle with soap solution, kid's bubble soap works great, and spray all the joints in the housing checking for air bubbles. Reweld any spots that blow bubbles, make sure you turn off the air pressure before you start welding.
3. After pressure testing, your housing should be ready to paint.
4. To install the filler cap, stretch the o-ring over the cap's threads and place it in the groove under the head of the cap. Apply some anti-seize to the threads and screw the cap on hand – tight. This cap is large enough to allow you to inspect the ring gear when it is removed.
5. Place one aircraft washer onto each of the 3/8 x 1-1/2" 12-point bolts, then screw into the housing face from the inside of the case. Use Loctite™ to secure them in place. They will act as studs to secure the third member housing. Use an aircraft washer and locknut to secure the third member housing.
6. Install the cooper gasket over the magnetic drain plug. Put anti-seize on the drain plug threads and screw it into the bottom of the housing.
7. Do not use a gasket to seal the 9" dropout to the FAB9. Use RTV gasket sealant only.
8. To fill oil to correct level, remove fill level sight plug from dropout and fill FAB9 through large filler cap on back of housing until fluid level is even with bottom of dropout fill level plug.

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