

# WB11008 & WB11009 OIL PANS

## Instruction Sheet

**WARNING!** These instructions must be read and fully understood before beginning installation. Failure to follow these instructions may result in poor performance, vehicle damage, personal injury, or death. If these instructions are not fully understood, installation should not be attempted.

### APPLICATIONS:

**PAN LABELED WB11008** – The WB11008 LS Retro-fit oil pan is designed for LS engine retrofit installation in a wide range of popular GM muscle/classic car and truck chassis.

**PAN LABELED WB11009** – The WB11009 LS Gen 1 F-Body Retro-fit oil pan is designed specifically for LS engine retrofit installation in 1967-69 Camaro/Firebird (Gen 1 F-body), 1968-1974 Nova/Apollo/Omega/Ventura (Gen 1 X-body) vehicles. The 102 oil pan may also service other popular muscle/classic car and truck chassis where more engine-to-chassis clearance is required near the front half of the oil pan.

### IMPORTANT APPLICATION NOTES:

- Both oil pans provide OEM fitment and oil filter mounting provisions.
- WB11008 & WB11009 are not intended to be used with engines that originally utilized a dry sump system.
- WB11008 is designed to use a GM full length windage tray. Depending on which full-length windage tray is used, some modification to the tray may be required. See the instructions showing the modification which may be required.
- WB11009 is designed to use a GM “F-body” windage tray, GM P/N 12558253. A modification to the windage tray is required to provide clearance to the pick-up tube. A full-length windage tray may be used if the front quarter of the tray is removed. See the instructions showing the windage tray modifications required.
- WB11009 may not be used on LS7 engines or engines with a stroke longer than 3.62”. The internal rotating assembly to oil pan clearance provided in the front half of the oil pan is patterned after a GM 98-02 LS1 oil pan.

The LS Swap oil pans are designed to work with an LS3 dipstick and tube (if desired). Below are the part numbers:

- LS Dipstick – GM P/N 12634547
- LS tube – GM P/N 12625031

**NOTE:** There are LS engine applications that have a plug installed in the dipstick hole location to be used with this oil pan. This plug will need to be removed before the oil pan is installed on the engine to allow the installation of the proper dipstick tube.

### PAN CAPACITIES:

	<u>WB11008</u>	<u>WB11009</u>
Sump Oil Capacity –	5.5 Qts	5.7 Qts
Total Oil Capacity w/ stock filter –	6 Qts	6.2 Qts

### PARTS NEEDED:

- Oil Pan Gasket (GM® 12612350, or equivalent)
- High Quality RTV sealer
- Oil
- Oil Filter (AC Delco® PF48 or PF48E, Mobile M1-113, Wix 57060, K&N HP-1017, or equivalent)

### REMOVAL:

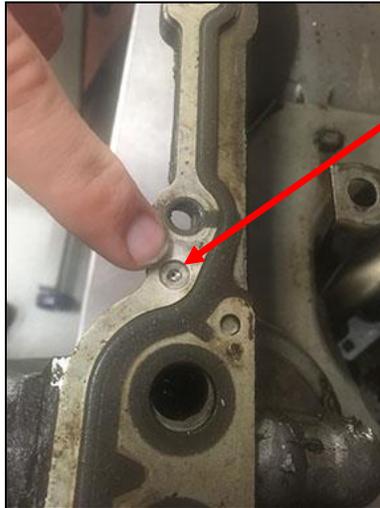
1. Drain the engine oil. Remove oil filter.
2. Remove the starter motor.
3. Disconnect the oil level sensor electrical connector (if equipped).
4. Remove the oil level sensor from the oil pan and set aside. The sensor will not be utilized in the pan.
5. Remove the RH transmission cover and bolt.
6. Remove the LH transmission cover and bolt.

7. Remove the bottom two transmission bellhousing bolts.
8. Remove the oil pan bolts.
9. Rotate the oil pan until it can be removed from around the oil pump pickup screen. Removal of the oil pan may not be possible with the engine in the vehicle).

**NOTE: We do not recommend or condone the use of the old pan gasket. A new gasket is highly recommended.**

**WARNING! Use extreme care when drilling the oil pan rivets to not gouge, score, or damage the oil pan gasket.**

10. If reusing the oil pan gasket, carefully drill out the oil pan gasket rivets (x2) if necessary (**Figure 1**).



**Figure 1**

11. Remove oil pan gasket.
12. Remove the oil pump pickup screen retaining bolt and nut.
13. Remove the oil pump pickup screen and O-ring, discard O-ring, and set the pickup aside as it will not be re-used.
14. While the oil pan is removed, check the dipstick hole on the right side of the engine below cylinder #6 to assure that there is no plug installed and that the dipstick tube will fit in the hole.

**IMPORTANT: All gasket surfaces should be free of oil or other foreign material during assembly. Inspect the engine block oil gallery passages to make sure they are free from any debris or restrictions.**

**IMPORTANT: The oil pan on LS engines is a structural member. The alignment of the pan is critical to provide the proper mounting points for the transmission bellhousing. The rear of the oil pan must never protrude from the rear of the block. The rear of the block and oil pan are to be flush (**Figure 2**).**

**IMPORTANT: Ensure that a helicoil has been installed in your pan by installing the drain plug.**



**Figure 2**

**IMPORTANT:** It is advisable to wash all of the new parts well before installing to remove any dirt or debris from the packing and shipping process.

**IMPORTANT:** It is advisable to test-fit the oil pan to the engine before installation to ensure that the crankshaft and connecting rods clear the windage tray, oil pump pick-up screen, and the oil pan, making a full revolution of the rotating assembly by hand.

**IMPORTANT:** It is advisable to mock up the engine and oil pan in the intended vehicle to ensure there is no contact of the pan to the frame or cross-members.

## INSTALLATION:

1. Remove the new oil pan, parts kit, pickup screen, and baffle from the box.

**IMPORTANT:** Ensure that a helicoil has been installed in your pan by installing the drain plug.

2. Install the supplied O-ring onto the oil pump pickup screen assembly and lubricate with clean engine oil (**Figure 3**).

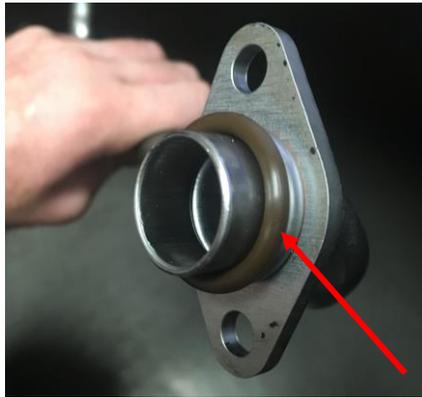


Figure 3 – pickup tube

## WINDAGE TRAY INSTALLATION AND MODIFICATIONS:

### WB11008 OIL PAN:

**WARNING!** Due to the design of the oil pump pickup screen, slight modifications may have to be made to the oil deflector before the pickup screen will sit flush (**Figures 4 & 5**). Be sure to inspect this area before bolting the pickup screen into place as modifications may have to be made. GM offers an oil deflector that has the necessary clearance for the mounting bracket of the pickup screen. The GM P/N is 12611129, if modifications to the oil deflector are not desired.



Figure 4



Figure 5

### WB11009 OIL PAN:

**WARNING!** The WB11009 oil pan is design to use a GM LS “F-Body” windage tray, GM P/N 12558253. Due to the design of the oil pump pickup screen, a modification to the windage tray must be made. A cut to provide clearance to the oil pick-up tube must be made as shown in **Figure 6**. The cut-out below may be used as a template for the cut.

A full-length windage tray may be used if it is modified to remove the front quarter of the tray and the required cut is made to provide clearance to the pick-up tube (**Figure 6**). A very careful check should be made to ensure that the oil pick-up

tube has clearance to the windage tray and that the oil pick-up tube mounting bracket seats down properly on the mounting stud and windage tray without interference.

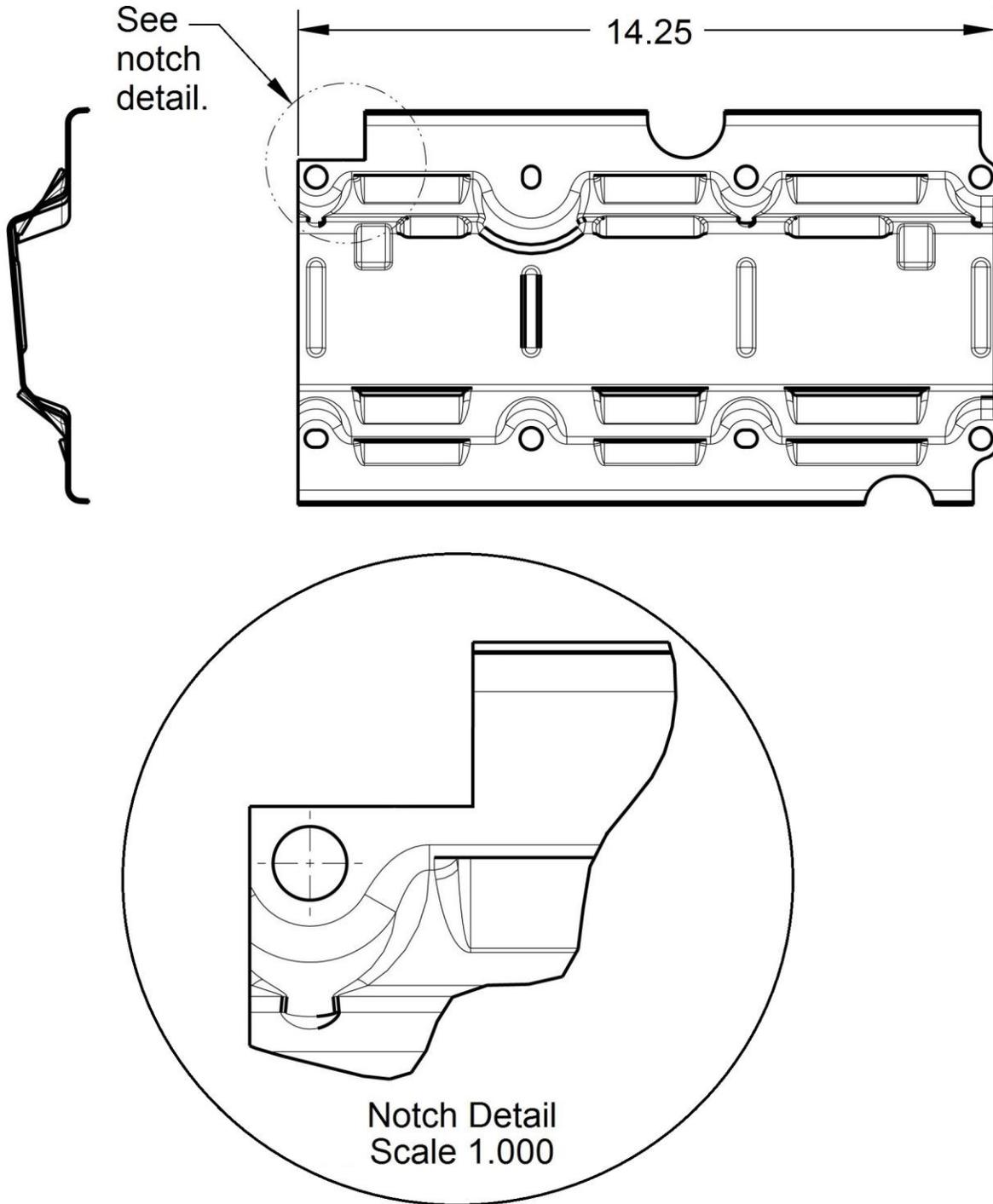


Figure 6

3. Install the new oil pump pickup screen assembly ensuring that oil pump pickup screen tube is pushed completely into the oil pump before tightening the bolt (Figure 7). Do not allow the bolt to pull the tube into the pump.

**NOTE:** Ensure the O-ring has not been pinched during installation.



Figure 7

4. Rotate the crankshaft by hand to ensure there is adequate clearance between the pickup tube brace, oil deflector, and the crankshaft counterweights.
5. Install the oil pump screen nut and bolt(s). You may need to slightly bend the tab to provide precise alignment of the hole in the tab to the mounting stud.

**NOTE:** The WB11009 oil pump screen/pick-up tube features a two bolt oil pump mounting flange. There are two M6 x 16mm long flanged socket head caps crews included in the installation parts kit. Use these two caps crews when installing the WB11009 oil pump pick-up screen.

6. Tighten the oil pump pickup screen bolt(s) to 106 in./lbs. and the nut to 18 ft./lbs.
7. Pre-assemble the oil pan.
8. Apply a drop of blue Loctite® to the threads of the (x4) supplied 1/4-20 x 1/2 long cap screws and use them to install the baffle into the oil pan. Torque the (x4) baffle bolts to 8-10 ft./lbs.
9. Install the supplied oil passage cover, O-ring and M6 x 1.0 x 30mm long bolts to the oil pan just above the oil filter. Tighten the oil passage cover bolts to 106 in./lbs.
10. Install the new oil pan gasket to the oil pan and install the oil pan bolts to the pan through the gasket. The gasket is designed to hold the bolts in place.
11. Apply a 5mm bead of RTV sealant 20mm long to the engine block (**Figure 8**) directly onto the tabs of the front cover gasket that protrude into the oil pan surface.



Figure 8

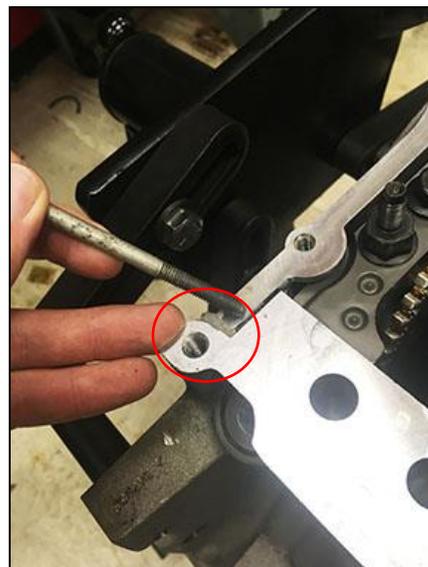


Figure 9

12. Apply a 5mm bead of RTV sealant 20mm long to the engine block (**Figure 9**) directly onto the tabs of the rear cover gasket that protrude into the oil pan surface.
13. Install the oil pan assembly to the engine block.
14. Snug all the oil pan bolts by hand (do not overtighten).
15. Install the two lower transmission bellhousing bolts until snug (do not overtighten).
16. Tighten the oil pan to block and oil pan to front cover bolts to 18 ft./lbs. (work from the center out).
17. Tighten the oil pan to rear cover bolts to 106 in./lbs.
18. Tighten the two transmission bellhousing-to-oil pan bolts to 37 ft./lbs. for either a manual or an automatic transmission.
19. Install the LH side transmission cover and bolt. Torque to 106 in./lbs. Install the RH side transmission cover and bolt. Torque to 106 in./lbs.
20. Install the supplied oil pan drain plug and tighten to 18 ft./lbs.
21. Install the supplied oil filter adapter and tighten to 40 ft./lbs.
22. Before installing the new oil filter, apply a thin film of oil to the filter gasket. Install the new engine oil filter and follow the manufacturer's recommendation for tightening procedures.
23. Fill the crankcase with the proper quantity and grade of oil.
24. Be careful not to overfill with oil.
25. Start the vehicle and check for leaks and adequate oil pressure. Use the original dipstick to verify the oil level. This should read full after 6 quarts of oil with a new filter.

**GM REPLACEMENT PARTS:**

12577903	OIL PASSAGE COVER
12611384	OIL PASSAGE COVER GASKET
12612350	OIL PAN GASKET
12600225	OIL FILTER STUD
11562588	OIL DRAIN PLUG

**REPLACEMENT PARTS:**

WB11110	REPLACEMENT PICKUP TUBE FOR WB11008
WB11111	REPLACEMENT PICKUP TUBE FOR WB11009
WB11112	REPLACEMENT BAFFLE FOR WB11008
WB11113	REPLACEMENT BAFFLE FOR WB11009
WB11114	REPLACEMENT HARDWARE KIT (BOLTS ONLY)

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