

Installation Guide

Retrofit Oil Pan for GM LS-Engines

(Turbocharged Applications)

555-50278, 555-50279

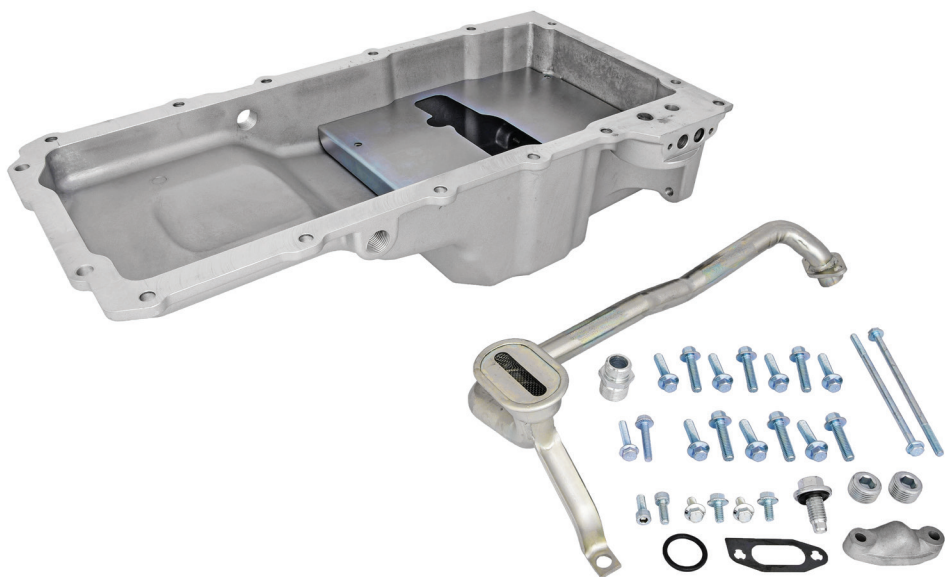
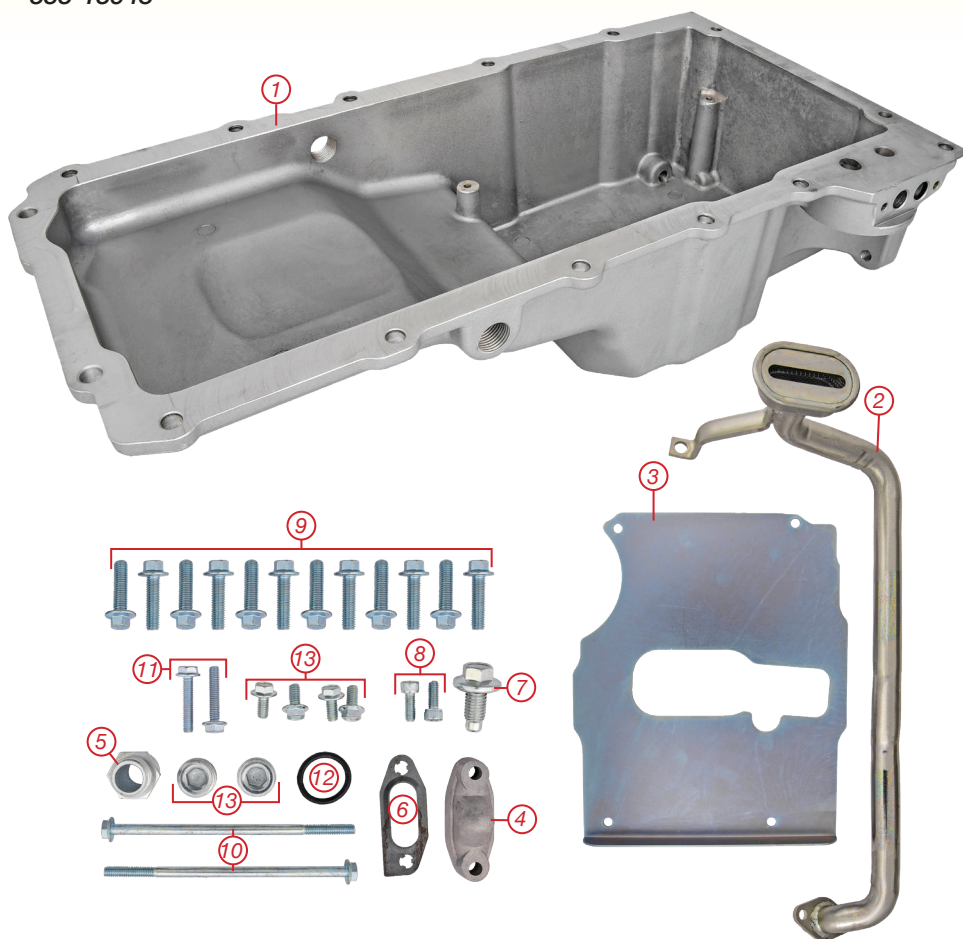


Table of Contents

<i>Table of Contents</i>	01	<i>Disassembly</i>	04
<i>Parts List</i>	02	<i>Installation Notes</i>	05
<i>Read Before Assembly</i>	03	<i>Installation</i>	06-08
<i>Capacities</i>	03	<i>Notes</i>	09-10
<i>Needed Parts</i>	03		

Parts List

555-15948



#	PART	QTY.	#	PART	QTY.
1	Aluminum Oil Pan	1	8	Pickup Tube Bolts	2
2	Pickup Tube	1	9	Oil Pan Bolts (Short)	12
3	Sump Baffle	1	10	Oil Pan Bolts (Long)	2
4	Oil Passage Cover	1	11	Oil Passage Cover Bolts	2
5	Oil Filter Adapter	1	12	Pickup Tube O-Ring	1
6	Oil Passage Cover Gasket	1	13	Sump Baffle Bolts	4
7	Drain Plug	1	14	Turbo Drain Hole Plugs	2

Read Before Use

Thank you for your purchase of this JEGS Retrofit Oil Pan. Before installation please be sure to read this guide to ensure proper installation.

The oil pan is vital to the proper functioning of your engine. Failure to properly install the components of this kit may result in engine damage or injury. Proper safety precautions are required.

If you have any issues with this retrofit oil pan, or components are missing or damaged, please contact customer service at: 1.800.345.4545.

Return Information: *Once this oil pan has been modified, it will not be accepted for return.*

WARNING

**READ AND UNDERSTAND
ALL INSTRUCTIONS.**

Failure to follow all instructions listed in this user guide may result in poor performance, vehicle damage, personal injury, and/or serious injury.

SAVE THESE INSTRUCTIONS!

These instructions contain a detailed overview of what is needed to install the oil pan. Please read the complete guide before starting installation. Valuable information is included that will save time, money, and frustration.

This oil pan kit is designed for retrofitting turbocharged LS engines into a wide range of popular GM muscle/classic car and truck chassis.

Note: *This oil pan is for wet sump applications only; it is not intended to be used with engines that originally utilized a dry sump system or any crankshaft with a stroke of 4.00" or larger.*

This pan offers OEM quality fitment and oil filter mounting provisions.

Capacity

Oil Pan Capacity.....5.6 Quarts
Total Capacity w/ Stock Filter.....6.1 Quarts

Needed Parts

- Oil Pan Gasket
- RTV Sealant
- Oil
- Filter

Disassembly

The following steps will take you through what is needed to remove the stock oil pan off of your LS engine.

1. Drain the engine oil.
2. Remove oil filter.
3. Remove the starter motor.
4. Disconnect the oil level sensor electrical connector (if equipped).
5. Remove the oil level sensor from the oil pan and set aside. The sensor will not be utilized with the new oil pan.
6. Remove the RH transmission cover and bolt.
7. Remove the LH transmission cover and bolt.
8. Remove the bottom two transmission bellhousing bolts.
9. Remove the oil pan bolts.
10. 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).
11. Remove the oil pump pickup screen retaining bolt and nut.
12. Remove the oil pump pickup screen and o-ring, discard o-ring and set the pickup aside as it will not be re-used.

Important Notes

GASKET SURFACES

All gasket surfaces should be free of oil and foreign material prior to assembly. Take care to inspect the engine block oil passages to make sure they are free of debris that may cause unwanted flow restrictions.

RIGIDITY

On LS engines, the oil pan is a structural member. Pan alignment is critical, providing mounting points for the transmission bellhousing. The rear of the oil pan must never protrude from the rear of the block; a flush fit is necessary.

PREPARATIONS

Prior to installing the new oil pan it is advisable to clean all the parts to ensure there is no packing debris that may create unwanted flow restrictions in the oil passages.

Prior to final assembly it is advisable to mock-up the engine/oil pan assembly to ensure that there are not inference issues with the frame or crossmembers.

Installation Notes

Windage Tray Notes

A full length windage tray may be used, but it must be modified to provide the necessary clearance for this oil pan. The front quarter of the tray must be removed prior to installation.

See Illustration below for the cut line.



F-Body Windage Tray Notes

This oil pan is designed for use with a GM LS "F-Body" (Camaro/Firebird) windage tray; GM P/N 12558253.

See Illustration below for the cut line.



Installation

1. Remove the new oil pan, parts kit, pickup screen and baffle from the box.
2. If not using the turbo drain port, plug with the supplied $\frac{1}{2}$ " NPT port plugs. If using see Step 22.



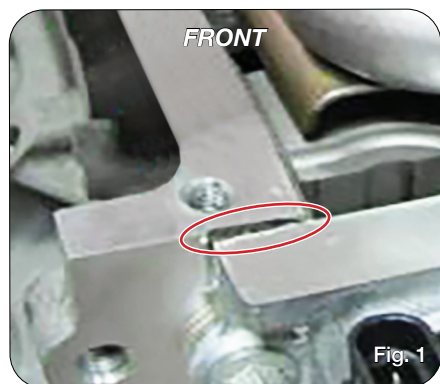
3. Install the supplied o-ring onto the oil pump pickup screen assembly and lubricate with clean engine oil. See image below.
4. Install the new oil pump pickup screen assembly ensuring that oil pump pickup screen tube is pushed completely into the oil pump before tightening the bolt. Do not allow the bolt to pull the tube into the pump (Ensure the o-ring has not been pinched during installation).
5. Rotate the crankshaft by hand to check for adequate clearance between the pickup tube brace, oil deflector, and the crankshaft counterweights.
6. Install the oil pump screen nut and bolt. Ensure that it sits flush, modifications may be necessary. See image at right.



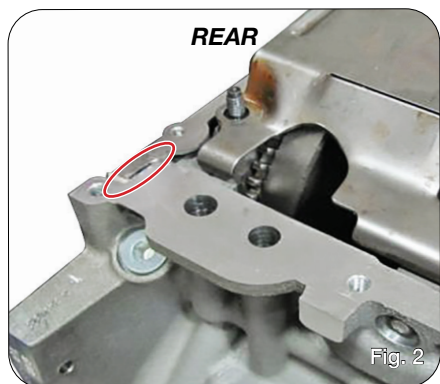
7. Tighten the oil pump pickup screen bolt to **106 inch lbs.** and the nut to **18 Ft. lbs.**
8. Pre-assemble the oil pan.
9. Install the baffle to the oil pan using the four (4) supplied $\frac{1}{4}$ -20 x $\frac{1}{2}$ " long cap screws. It is recommended that a drop of blue threadlocker be applied to the threads of the bolts. Hand tighten.
10. Torque the (4) baffle bolts to **8-10 ft. lbs.**
11. Install the supplied oil passage cover, gasket 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 inch lbs.**

Continued on Next Page ➔

Installation Contd.



12. 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.



13. Apply a thin bead of RTV sealant directly onto the tabs of both the front and rear cover gaskets that protrude into the oil pan surface. (Figure 1 & 2)

14. Install the oil pan assembly to the engine block. Ensure there is a flush fit.
15. Snug all the oil pan bolts by hand (do not over-tighten).
16. Install the two lower transmission bellhousing bolts until snug (do not over-tighten).
17. Tighten the oil pan to block and oil pan to front cover bolts to **18 ft. lbs.** (work from the center out).
18. Tighten the oil pan to rear cover bolts to **106 inch lbs.**
19. Tighten the two transmission bellhousing bolts to **37 ft. lbs.** for a manual or automatic transmission.
20. Install the LH side transmission cover and bolt. Torque to **106 inch lbs.**
21. Install the RH side transmission cover and bolt. Torque to **106 inch lbs.**
22. For turbocharged applications connect the turbo drain lines to either, or both, sides of the oil pan. For single turbo applications, plug the unused port with one of the supplied $\frac{1}{2}$ " NPT port plugs. Wrap threads in teflon tape prior to installation. (Figure 3)

Installation Contd.

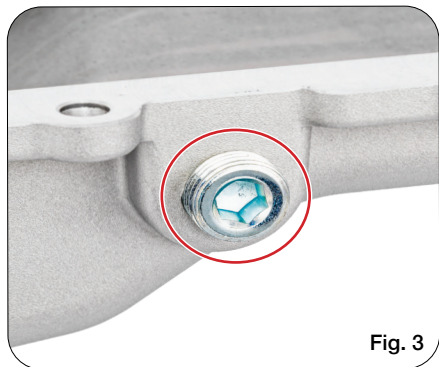


Fig. 3

23. Install the supplied oil pan drain plug and tighten to **18 ft. lbs.**
24. Install the supplied oil filter adapter and tighten to **40 ft. lbs.**
25. Before installing the new oil filter, lightly coat the filter gasket with oil.
26. Install a new engine oil filter and tighten to **22 ft. lbs.**
27. Fill the crankcase with the proper quantity and grade of oil. (Be careful not to overfill with oil. Use the stock dipstick to monitor oil levels).
28. Start engine and check for leaks.
29. Re-check the oil level to ensure the proper amount was added.

Notes

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There is a vertical margin line on the left side, creating a narrow left margin. The paper appears to be a standard notebook or ledger page.

Notes

[illegible]

If you have any issues, or if this oil pan is damaged, please contact customer service at:
1.800.345.4545.

Return Information: *Once this oil pan, or its components have been modified, it will not be accepted for return.*



1-800-345-4545