

Installation Guide

Retrofit Oil Pan for GM LT-Engines

(Turbocharged Applications)

555-50286

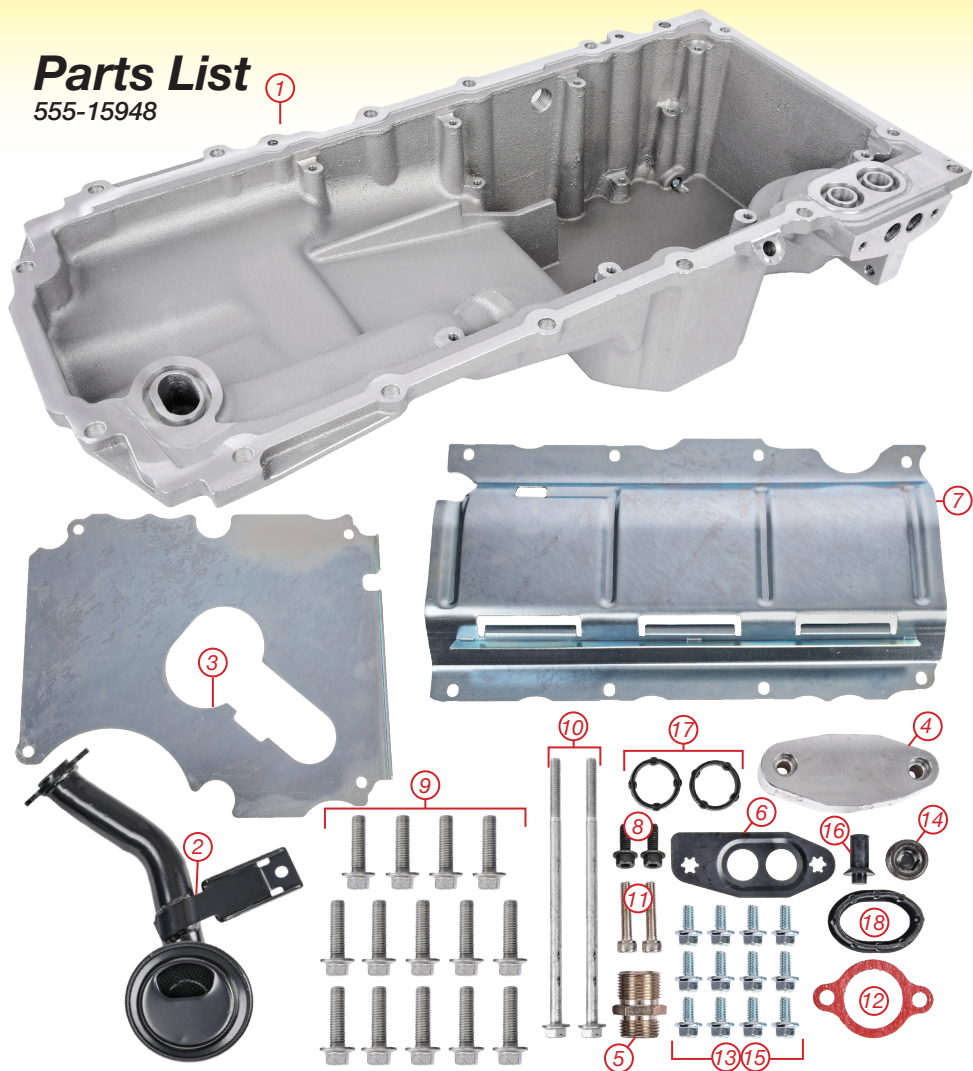


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Parts List

555-15948



#	PART	QTY.	#	PART	QTY.
1	Aluminum Oil Pan	1	10	Oil Pan Bolts (Long)	2
2	Pickup Tube	1	11	Oil Passage Cover Bolts	2
3	Sump Baffle	1	12	Pickup Tube Gasket	1
4	Oil Passage Cover	1	13	Sump Baffle Bolts	4
5	Oil Filter Adapter	1	14	Turbo Drain Hole Plug	1
6	Oil Passage Cover Gasket	1	15	Windage Tray Bolts	8
7	Windage Tray	1	16	Dipstick Hole Plug	1
8	Pickup Tube Bolts	2	17	Oil Filter Passage Seals	2
9	Oil Pan Bolts (Short)	12	18	Pickup to Oil Pump Seal	1

Read Before Use

Thank you for your purchase of this JEGS LT 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 LT 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
- Thread Locking Compound
- Oil
- Filter

Disassembly

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

1. Drain the engine oil.
2. Remove oil filter.
3. Remove the oil level indicator tube.
4. Remove the LH transmission cover and bolt.
5. Remove the starter motor.
6. Remove the engine oil cooler adapter
7. Remove the RH transmission cover and bolt..
8. Disconnect the oil level sensor electrical connector.
9. Remove the oil level sensor from the oil pan and set aside. The sensor will not be utilized with the new oil pan.
10. Remove the bottom two transmission bellhousing bolts.
11. Remove the oil pan bolts.

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 LT 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.

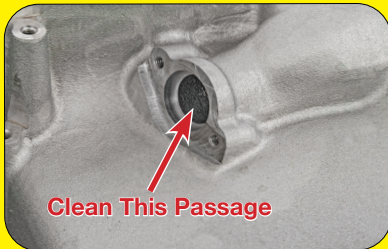
Prior to final assembly it is advisable to mock-up the engine/oil pan assembly to ensure that there are not inference issues with the frame or crossmembers.

Assembly

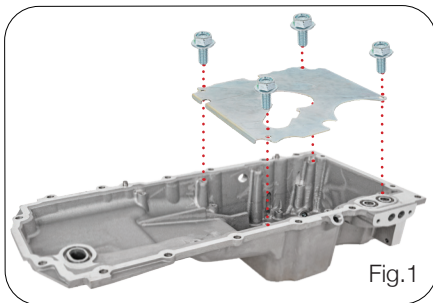
1. Remove the new oil pan, parts kit, pickup screen and baffle from the box.

WARNING

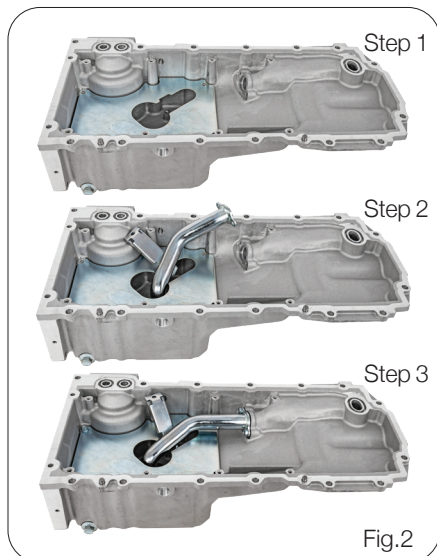
Push a flexible brush all the way through the pan's internal passage to assure it is clean and unobstructed. Any obstruction can affect oil pressure and damage the engine. See photo below.



2. Pre-assemble the oil pan.
3. Apply a drop of threadlocker onto the threads of the (4) four supplied M6 x 12mm flange headed bolts and use them to install the baffle into the oil pan. Torque the bolts to **10 ft. lbs.** Fig. 1



4. Install the oil screen/pickup tube and gasket with the supplied (2) two M6 x 16mm flange head bolts. Apply a drop of threadlocker onto the threads before installing. You may need to slightly adjust the bracket to provide precise alignment of the hole. Torque the bolts to **10 ft. lbs.** Fig. 2

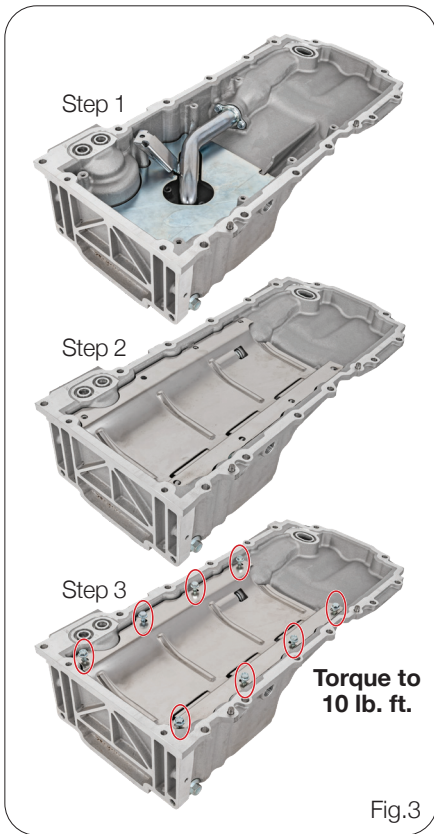


IMPORTANT

While the bolts are started, but still loose, lift the pickup tube. Tighten the two bolts while maintaining the lifted position. This process will ensure proper clearance between the pickup inlet and the pan floor.

Assembly Contd.

5. Install the windage tray. Apply a drop of threadlocker to the threads of the supplied (7) seven M6 x 12mm flange head bolts. Install the (1) one M6 x 16mm flange head bolt in the location that also goes through the pickup tube bracket. Torque the bolts to **10 lb. ft.** Fig. 3



6. If not utilizing the oil return port, install the 1/2" NPT plug provided. Use threadlocker to secure. Install finger tight and then tighten 2 to 3 rotations. Fig. 4

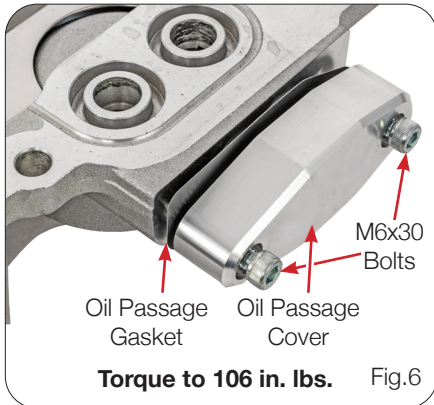


7. Install the supplied oil pan drain plug and tighten to **18 lb. ft.** Fig. 5

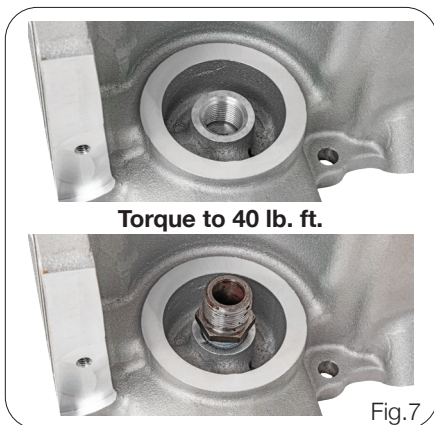


8. Install the supplied oil passage gasket, cover, and supplied (2) two M6 x 30mm socket head bolts to the oil pan just above the oil filter. Tighten the oil passage cover bolts to **106 in./lbs.** Fig. 6

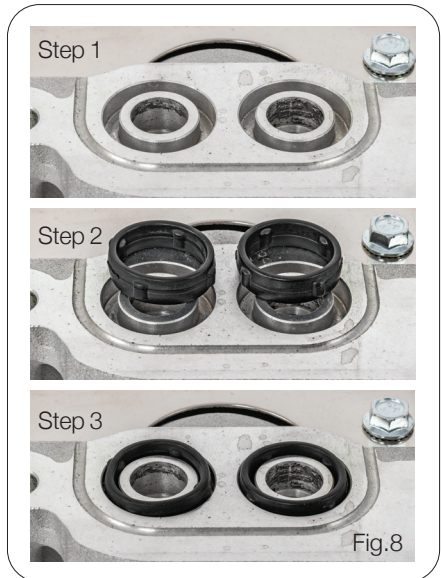
Assembly Contd.



9. Install the supplied oil filter adapter and tighten to **40 ft. lbs.** Install oil filter now or after pan installation is complete. 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. Fig. 7



10. Install the supplied (2) two oil filter passage seals. Fig. 8



11. Install the supplied pickup to oil pump seal. Fig. 9

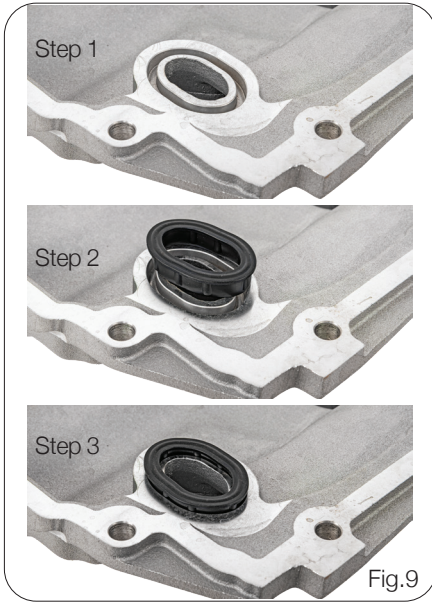
WARNING

The seal must be oriented as shows in the images in Figure 9.

Failure to correctly orient the seal may result in improper sealing between the oil pump and oil pan pickup.

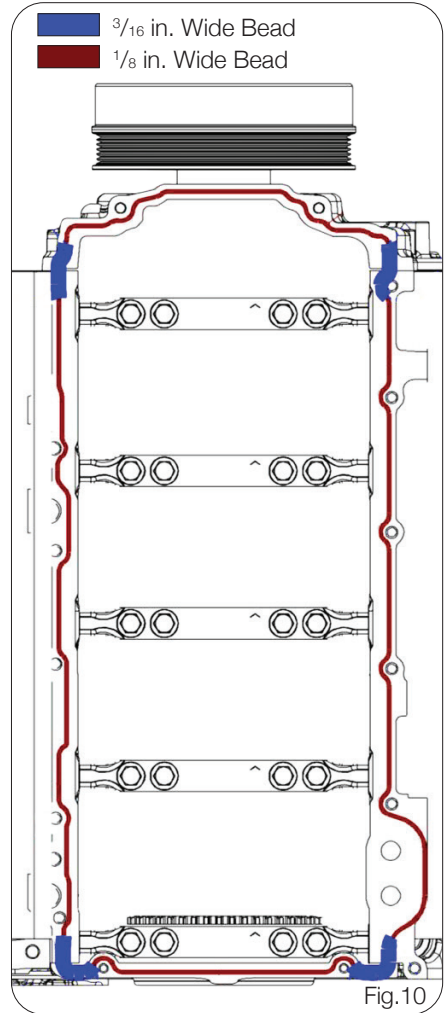
Assembly Contd.

Sealant

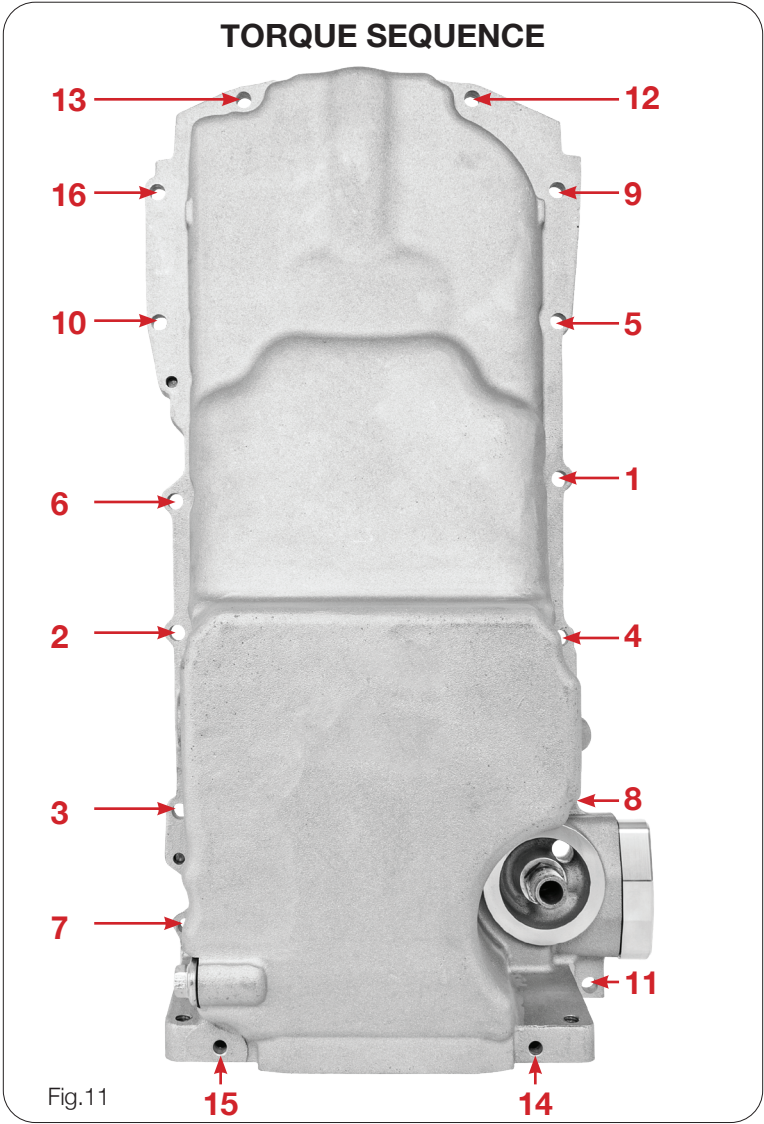


12. At this point the oil pan is ready for installation. In the following section we will discuss sealant location and locating pins.

Apply a bead of RTV sealant in specific amounts, $\frac{1}{8}$ in. and $\frac{3}{16}$ in. widths, as shown in the diagram below. Fig. 10



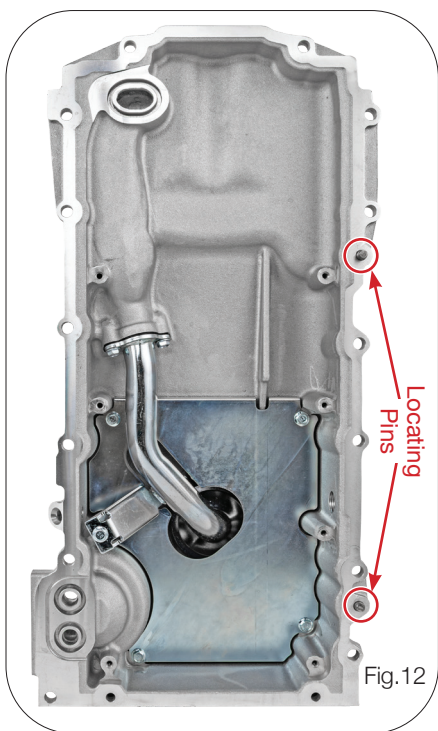
Installation



Torque
M8 Bolts - 18 ft. lbs. - Bolts 1-13
M6 Bolts - 106 in. lbs. - Bolts 14-15

Installation Contd.

1. Position the oil pan in place on the engine block using the two locating dowels on the drain plug side of the pan. This oil pan kit does not come with the dowel pins. Remove and reuse the pin from the original oil pan. Fig. 12



2. Install the mounting bolts for the oil pan assembly.
3. Tighten the oil pan mounting bolts to **18 ft. lbs.** See torque sequence. Fig 11

4. Tighten the oil pan mounting bolts M6 to **106 in. lbs.**
5. Install the bell housing to oil pan bolts. Tighten the bolts to **37 ft. lbs.**
6. Install the starter assembly.
7. Install left and right rear transmission cover and bolt.

NOTE: For truck engine applications, a thin spacer (approximately 2mm thick) may be required at the bolt between the covers and the pan (spacers not included).

NOTE: Tighten the transmission cover bolt to **106 in. lbs.**

8. Install the oil level indicator tube. Confirm O-ring seal is in place. If tube is not new, replace tube seal before installation.

NOTE: Tighten the tube bracket bolt to **88 in./lbs.**

9. Fill the crankcase with the proper quantity and grade of oil. Be careful not to overfill with oil.
10. Start the vehicle and check for leaks and adequate oil pressure. Use the dipstick to verify the oil level. This should read full after 6 quarts of oil with a new filter.

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