



Oil Pan, Aluminum Ford F-150, Lightning Pickup
and Mustang Part # 20554 & 20555

This oil pan can be installed on the Generation 2 Ford Lightning Pickup with 5.4L supercharged engine and non-supercharged modular motor (4.6L or 5.4L) in a two-wheel drive Ford F-150 and Mustangs. Instructions for removal of the stock oil pan on these vehicles vary. Follow the procedure for your particular vehicle.

Note: Refer to the factory service manuals for all torque specs and procedures

Removal of stock oil pan

1. Disconnect the battery.
2. Remove the drain plug and drain the oil.
3. Remove the dipstick.
4. Loosen the engine mounting bolts and remove the nuts on the transmission mount.
5. Use the proper equipment and safety precautions to support the front of the engine and remove the engine mounting bolts.
6. Raise the front of the engine approximately (2) inches.
7. Remove the dust shield from the transmission.
8. Loosen the 10MM oil pan mounting bolts.
9. **Oil Pan Removal, Non-Super Charged:**

a The oil pan removal on a Non-Supercharged installation can be performed without damaging the stock oil pan or disturbing the transmission. There is sufficient room to raise the engine far enough to provide the needed clearance.

Oil Pan Removal, Super-Charged:

Based on our experience in the shop, removing the stock oil pan on a super-charged engine can be performed one of two ways.

- a If you are willing to damage the stock oil pan, bend the rear oil pan rail downward with a large pair of vice grips. The pan will clear the transmission during removal.

For Technical Assistance, call Moroso's Tech Line at
(203) 458-0542, (203) 458 0546 8:30am-5:00pm Eastern Time

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- b The second option is to loosen transmission bolts and slide the unit back or completely remove the transmission.
This procedure is necessary because the Lightning's super-charger does not allow engine to be raised enough to allow the oil pan to be removed.
- 10 a The oil pump pickup is fastened to the engine in two places. Remove the 12MM hex head bolt located at the rear of the oil pump pickup.
 - b Slide the oil pan rearward and remove the two 8MM hex bolts that fasten the oil pump pickup to the engine. The pickup will drop into the pan
 - c Remove the pan, pickup and gasket at the same time.
- 11 Thoroughly clean all gasket surfaces on the block with enamel reducer or brake cleaner.
- 12 Thoroughly clean the stock oil pump pickup. If you are going to re-use the oil pan gasket, clean it thoroughly also.
- 13 Place a dab of RTV silicone on each corner of the oil pan gasket and place the gasket on the engine. Re-install a few oil pan bolts (loosely) to hold the gasket in place until the RTV sets up (approximately 30 minutes).
- 14 Remove the screws used to hold the gasket in place.
- 15 Place the oil pump pickup into the pan. Orientate it exactly the same way it was, in the stock pan (pump fitting to the front of the engine and pickup box to rear).
- 16 Slide the pan and pickup into place under engine.
- 17 Slip the oil pump end of the pickup into place and (loosely) re-install the (2) 8MM hex bolts.
- 18 Re-install the 12MM hex bolts at the rear of the oil pump pickup.
- 19 Torque all oil pump pickup screws to the factory specs.
- 20 Place pan in position and install all 10MM oil pan bolts. Refer to the Factory service manual for torque and tightening sequence.
- 21 Install and tighten the oil pan drain plug.
- 22 a Lower engine to proper position in truck and re-install the engine mounting bolts.
 - b Torque to factory specifications.
- 23 Re-install and torque the transmission mounting nuts.
- 24 Replace the dipstick and re-fill the engine with oil.
Note: A Lightning with a stock oil pan and filter has a (6) quart capacity. This new Moroso Oil Pan increases the capacity by two quarts to a total of (8)Quarts (with filter change).
- 25 Re-connect the battery terminals.